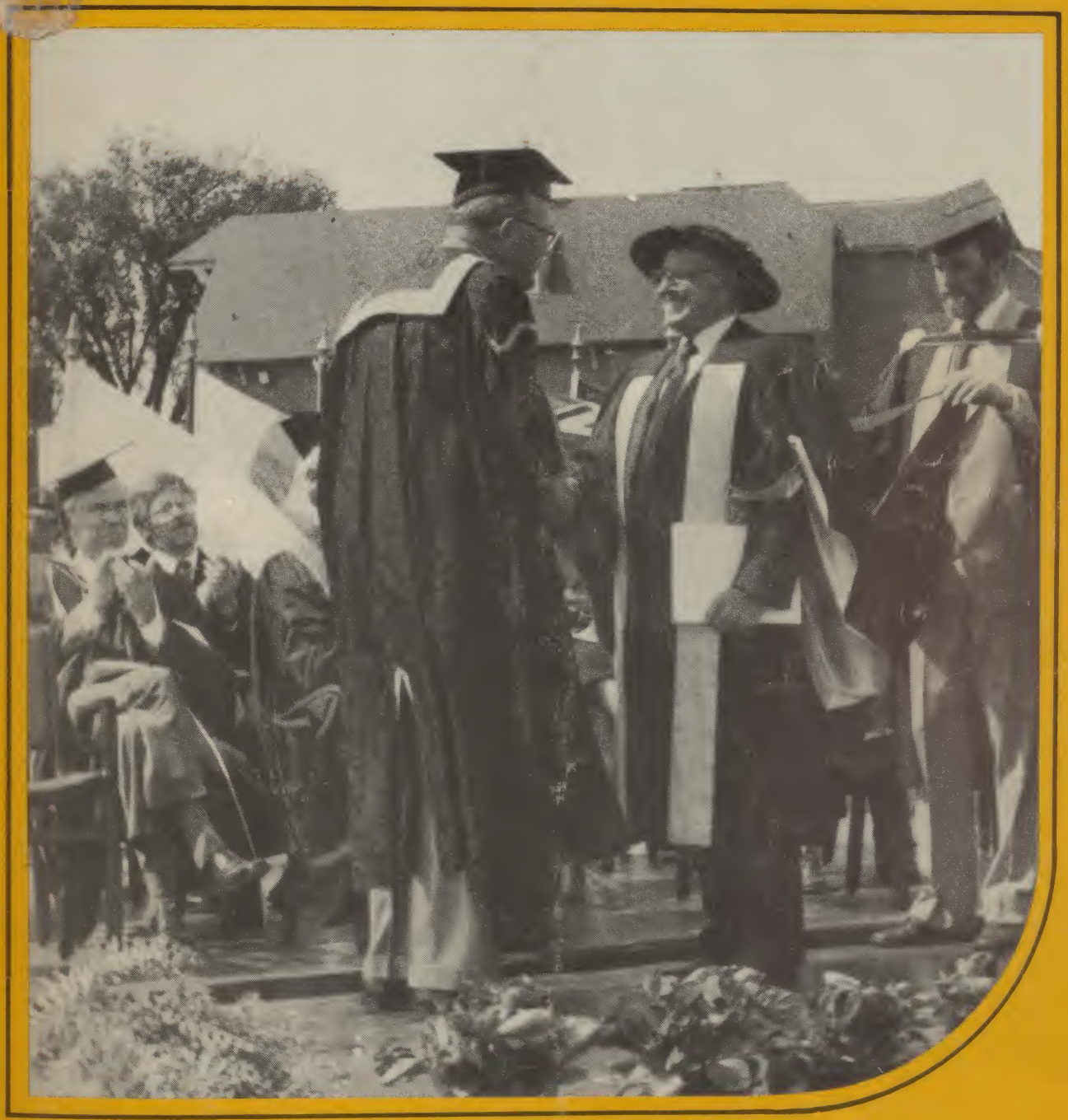
THE MACDONALD JOURNAL

AUGUST 1983



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This Issue

Features

Cover Story

This issue marks the first anniversary of the new quarterly Macdonald Journal, and again this it features the highlight of a College year — Convocation — and is going out to all Mac a as well as to our regular subscribers, included among whom are a growing number of gradu We hope that material in this issue will whet enough appetites that other grads will take a mo to tear out the attached coupon and send it to us together with a cheque and comments. To t who have responded by subscribing in the past year, thank you for your confidence and you rest. Our cover shows Chancellor Conrad Harrington conferring the Degree of Doctor of Scie *honoris causa* upon Mr. Donald McQueen Shaver. Dean Lloyd tells us about this remarkable on page 6.

alumni

ear Mac Grad,

ne year ago my message to the alum- was carried in the first issue of the new look" Macdonald Journal. At the me, I attempted to explain our new pproach to outreach activities in the mmunity we serve and to indicate hat an important role our alumni can ay in those activities.

That issue of the Macdonald Jour- l was sent out to over 4500 grads, gardless of their geographic loca- n. In return, we asked that each of u give serious consideration to bscribing to the Journal. While the sponse was by no means over- elming — we received during the ar just over 175 new subscription re- ests from grads — there were ough encouraging letters sent in to to suggest that we should try again. Hence, we are sending once more copy of the 1983 alumni issue of the urnal to each of our grads who is not eady a subscriber. We hope that u'll do a number of things. First, hav- read the material and savoured the vour of the Journal, we'd very much preciate hearing from you with your as of how we can serve you better the future. Second, we'd love to ve your ideas on how Macdonald llege should be planning for the ure in difficult financial times. Third, completion of the accompanying scription request would indicate to that we're doing at least some gs right. Remember that the jour- is a quarterly publication and each ue contains material of special in- est to alumni.

This year we added 265 names to list of Mac grads, and you will be ding more about our June convoca- elsewhere in this issue. It may be nterest to know the distribution of degrees granted on June 3rd. The graduates included 157 c.(Agr.), 39 B.Sc.(F.Sc.), 25 B.Sc. r.Eng.), 14 M.Sc., 7 Ph.D., and 23 loma in Agriculture. We continue to mpressed with the calibre and dedi- ion of our students, and I would like make special mention of our in- asing number of Francophone dents who combine the earning of rofessional degree with the learn- of a second language.

You have probably heard that the ding of Quebec universities by the vincial government was again cut k for the 1983-84 year. McGill University was, of course, subjected to its proportional cut, and the Faculty of Agriculture (including the School of Food Science) had to absorb its share. However, I am pleased to be able to report that our decrease in the budget base for the current year was accomplished without any serious deterioration in the quality of our various programs.

A report issued by the Faculty of Graduate Studies and Research during the past winter indicated that our Faculty was grouped with Medicine, Science, and Engineering as the "big four" in the University in terms of funds obtained from different sources for research purposes. This says much for the initiative of our staff and provides a viable basis for the continuing growth in our graduate student population.

On behalf of the Faculty of Agriculture and the School of Food Science, I wish to express appreciation to all those alumni who made contributions through the Alma Mater Fund office and designated their donations for faculty development. For the 1982-83 year, this resulted in some $26,500 being available to the Dean for discretionary purposes. These funds were used during the past year to provide entrance scholarships, to alleviate some of the special problems that arose in the Macdonald library, to supplement the University funds available for campus care, and to support our outreach programs in the non university communities. Thank you Mac grads.

In conclusion, may I again remind you of the Fall Reunion, which this year will take place on October 1st. That great Class of '48 will be celebrating the 35th anniversary of its graduation and, on behalf of Val Swail and his organizing committee, I wish to extend a challenge to each of the other honour years to attempt to surpass the Class of '48 in percentage attendance. We hope to see you this fall.

Yours sincerely,

L. E. Lloyd.

L.E. Lloyd
Dean, Faculty of Agriculture and Vice-Principal (Macdonald Campus)

Over the years class gifts have added a new dimension to the support for Macdonald. Dean Lloyd gathered with members of the Class of '65 to acknowledge their 15th anniversary class gift — a grove of trees between the Centennial Centre and the Macdonald Stewart Building.

MACDONALD A.M.F. EXCEEDS GOAL

"This past year the Macdonald College Alma Mater Fund topped our objective of $50,000," reported A.M.F. Chairman Larry Johnston. The final total is $52,566 now that all the results are in.

Perhaps the greatest encouragement to the Macdonald A.M.F. Committee of Harold Blenkhorn, Jim Wilding, and Larry Johnston is the increase in donors. The percentage of participation is at 21.5 per cent which is better than 45 per cent of the other McGill University areas receiving alumni support and is almost a 10 per cent increase over last year.

More effort with the Montreal Phonathons and encouragement for special Anniversary Class gifts will continue this important trend and increase the annual development funds for the Faculty of Agriculture and the School of Food Science. Many Macdonald graduates will recall the significant support which they provided, both moral and financial, during the successful Macdonald Agriculture Campaign several years ago. The A.M.F. provides an annual fund for the Dean of Agriculture for those expenses outside of operating funds, thus allowing a flexibility for special Faculty or student projects and programs during the year.

"We have made discrete use of the funds to promote entrance scholarships, campus care, the library, and general faculty development," explained Dr. Lewis Lloyd, Vice-Principal, Macdonald, in response to questions at a recent Branch meeting. "And," he continued, "current budget constraints make the flexible funds extremely important to the morale of our Faculty and provides the potential to keep a step ahead in many areas."

MUCH APPRECIATED LIBRARY GIFTS

Janet Finlayson, B.Sc. (H.Ec.) '59, B.L.S. '65, Librarian, and Paul Jensen from the Class of '82 flank a display of some of the books donated to the Library by the Class of '82 as their graduation gift to Macdonald College.

As well, the Library is particularly pleased to have received a donation of $1,000 from Mr. Charles A. Eaves, B.S.A. '32, M.Sc. (Agr.) '37, in memory of Dr. G.S.H. Barton, after whom the library building is named. This, in addition to other donations from many graduates in the past year, has been a very welcome supplement to the meagre book funds.

Mr. Eaves attended the 50th Anniversary Reunion of his class last October and toured the Library while he was on Campus. Of added interest is the fact that Janet Finlayson's father, the late D. Archibald Finlayson, B.S.A. '32. M.Sc. (Agr.) '34, was a classmate of Mr. Eaves's as well as of Norman Beach whose story appears in this issue.

Reunion '83 Featured for National Universities Week

The celebration of the importance of excellence in Canadian universities in October will perhaps best be understood by those who contributed over the past years to the change and development in our universities and colleges and in our country. Therefore, Reunion '83 will highlight nostalgia in a setting of knowledge of the start of National Universities Week.

Macdonald College started with a general purpose of quality of life and excellence in the home, in the schools, and in agriculture. The Honorary President of the Macdonald Branch, Dr. David Stewart, has often recalled to alumni these basic tenants which were the cornerstone of Sir William's unswerving support in the establishment of Macdonald College.

The graduates of Macdonald have assumed an important leadership role in their respective professions since the first graduating class of 1911. It has been noted that dedication to doing a job well in spite of difficulty and modest material gain has slowly disappeared. However, Macdonald has graduated young men and women who continue to exemplify the most

HOMECOMING SCHEDULED FOR OCTOBER 1

This could be the best anniversary lass response in recent years," explained Steve Olive, B.SC. (Agr.) '68, hairman of Reunion '83. He noted at every honour year was planning r a class event or involvement in me of the special Homecoming acvities.

"All of the Branch Officers and irectors become involved," says eter Knox, B.Sc. (Agr,) '74, Branch esident. "We expect that most aduates will be on hand early Saturay morning to enjoy our continuous pply of coffee and croissants in our spitality room." Registration gins at 9:30 a.m. and will "tally the oops" for the presentation of the onour Class Shield at the Reunion nner Dance.

For alumni who would like an inforal update on teaching and research either Food Science or Agricultural onomics, seminars have been arnged for 10:30 a.m. in the Centenal Centre. This is an extension of the pularity of these events last year.

In the early afternoon a seminar ll be offered on the exceptional rk being done by the Macdonald llege Faculty in more than a dozen untries of the world. Dr. Eugene nefer, recent recipient of the Earle Crampton Award for his research d teaching, will give a brief presenion on Macdonald International.

One of the new events that has shown increasing appeal to Macdonald staff, alumni, spouses, and friends is the Reunion Luncheon. Dr. Lewis Lloyd will welcome everyone and give a brief "State of the College" address and Dr. Sherman Touchburn will report on the exciting joint project with the Faculty of Medicine: "The Nutrition Centre." This is the one occasion when all of the Macdonald Community Clan can gather and renew acquaintances. At the same time the Vice Principal will honour the graduates of the Class of 1933, our 50th Reunion Class.

Spread throughout the day are selected van tours of the redeveloped Macdonald Campus and a tour of the Macdonald Stewart Building. It is hoped that the display of Honour Class photos will all look familiar!

In response to requests from our Homecoming guests, staff will be available from 3 p.m. to answer questions about the projects underway in the Dairy Herd Analysis Service, the Pilot Plant, the Raptor Centre, College Farm, and the Brace Institute.

The closing event for all classes and Macdonald participants is the Branch Reception at 6:30 p.m. and the Buffet Dinner at 7:30 followed by the Dance. Each class can reserve tables and continue Reunion activities until 1 a.m., or at least until the door prizes have all been announced and the Honour Shield for the best anniversary class attendance has been awarded. As usual, Steve Olive, Reunion Chairman, guarantees that the "computer minds" of the Reunion Committee will verify precise results for the Honour Shield award and that the Vice Principal will lead our Reunion in honouring the 25th Anniversary Class of 1958. Make a day (and a night!) of it — plan to join us for Reunion '83 on October 1st.

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eunion '83 turn)

"Mastery for Service." It is the search work and effective teaching Macdonald which continue to inre students to excellence in their ofession.

Countless numbers of alumni uld provide small consolation for current graduating class, some of om are searching for employment, en they say, "Macdonald College esn't always open doors to jobs — opens the mind." It is a quality ucation which will provide the skills cessary to adjust to changing hnological developments and the rmation explosion and will equip individual to have the confidence grow and develop in a constantly anging world.

Honour Classes Active

"Everyone is welcome at Reunion," says Steve Olive, Registrar of Macdonald and Chairman of Reunion '83, "but," he is quick to add, "it's the Reunion Class Chairmen that take the initiative to alert classmates to get thinking about Homecoming."

At a special reception in April Class Chairmen shared ideas about planning a Reunion event and gave some excellent suggestions to the Reunion Committee for its general events. Those Class Chairmen who are in the process of writing newsletters and receiving feedback from classmates are as follows:

Class Events Chairmen

Mr. Paul Thomassin (Agriculture & Food Science '78)
Mrs. Suzelle Barrington (Agriculture & Food Science '73)
Mr. Stephen Casselman (Agriculture & Food Science '68)
Mr. Robert Farr (Agriculture & Home Economics '63)
Mr. Alan Douglas (Agriculture & Home Economics '58)
Mrs. Pat Reynolds (Agriculture & Home Economics '53)
Mr. V.M. Swail (Agriculture & Home Economics '48)
Dr. Robert R. Orr (Agriculture & Home Economics '43)
Mr. Robert McElroy (Diploma Agriculture '33)
Mr. J.C. Goundrey (Diploma Agriculture '33)

The Reunion Committee acknowledges the leadership and guidance provided by these representatives of the Honour Classes. All the changes in the Homecoming in recent years are a result of encouragement from the graduates and their class officers.

It is hoped that the good turnout of recent classes will continue and, in addition to the 50th and 25th Anniversary Classes, a special welcome is extended to the Class of 1978.

Good Fences Make Good Neighbours

The above quote must occur from time to time to Peter Knox, B.Sc. (Agr.) '74, President of the Macdonald Branch of the Graduates' Society and Manager of Campus Services for both Macdonald and John Abbott College. He readily admits that his job may be unique in that his work involves both campuses, and he does his utmost to maximize the campus environment encompassing more groomed, grassy slopes than you would see on an average golf course. And, he's quick to add, he and his staff do this on less than one third of the equivalent campus care budget that normally would be required.

It may be surprising to some that he is the former photo editor of the *DRAM*, the Macdonald student weekly newspaper of a few years ago and is reported to have been a regular contributor to a particular and very popular "scandal column." He was also an active member of the Centennial Centre Committee in '69. He now devotes his energy to maintaining the attractive setting for which Macdonald has been noted for so many years. As Peter Knox explains it, "there is an enthusiastic and young staff that is anxious to re-kindle the spirit that has been part of Macdonald for so many years and which the older staff remember with a great deal of pride."

There is an increase in the contact with the community on both campuses and, as Peter pointed out, "on an average day we may have 10,000 people visiting every portion of the overall area and this requires effective and efficient organization for traffic particularly vehicular traffic, without detracting from the pedestrian areas throughout."

From his point of view, the student program may not be what it was five or even 10 years ago. However, he explained that it is being modelled more to meet the changing circumstances and the new demands of the marketplace and will ensure that Macdonald continues to make a significant contribution to the agricultural scene in Canada and in other countries of the world.

Peter's first experience with Macdonald was from a very distant point of view. He had graduated from Mount St. Mary's College in Derbyshire,

At Reunion '82 last fall Larry Johnston, left, and Peter Knox toured the Campus, stopping to admire the maple trees given as a gift.

A Peek at Pirates

A happy group of Pirate curlers: back row, left to right, Bill Shipley, Ron Davidson, John MacDo... Chess Randall, Don Morrison, Ham Kenney, Doug McKechnie, Darryl Wood, and Marlyn O... nor; — front row: Bill Ellyett, Bruce Downey, Neil Duffy, Peter Bilous, Steve Olive, Don M... Jim Curry, and Wayne Faithfull.

by Bill Shipley, B.Sc. (Agr.) '48
Executive Assistant to
the Vice-Principal

Pirate Curling is a legend in its own time — if you don't think so, just ask a... "Pirate!"

The annual "home and home" curling competition between the Otta... "Old Boys" (Mac Grads working in Ottawa) and the Mac "Profs" (Staff at Ma... donald) began in the early 1950s.

People such as "Skipper" Wallace, Gordon O'Brien, Jim Woodward, K...

ngland, and he recalls with amuse-ent the response of his headmaster hen he told him that he was plann-g to study agriculture at McGill. The eadmaster replied, "Agriculture? hen you really mean Macdonald Col-ge!" He was born in Trinidad where still has family ties. It was not usual for him to acquire some owledge of agriculture and Mac-onald from the neighbours in Trinidad, hn Nugent and his wife Maureen, o are graduates of Macdonald, and recalls his father's work as a anager of a sugarcane project in inidad. When he graduated in 1974, was employed with Dairy Herd alysis Service before taking up the sition of Manager of Campus rvices.

His wife Brenda (Lamb), is B.Sc. (Agr./Animal Science) '80 and shares Peter's enthusiasm for the Macdonald setting.

The special efforts to redevelop the campus and return it to the traditional attractiveness it has known throughout the years is the foremost objective which Peter has in his day-to-day work and in his leadership of Macdonald graduates as President of the Macdonald Branch.

As one of the few staff members at ease in both John Abbott and Macdonald, he hopes that his work in some way can continue the positive complementary activities and programs of both campuses as the second decade continues with John Abbott as a good neighbour to Macdonald.

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owe, Jim Gordon, and others were key participants in the original Pirates' ght (at the Ste. Anne de Bellevue Club in Senneville) and hence they began e Ottawa-Mac rivalry and good fellowship that is a traditional element of the Roaring Game."

To provide a capsule version of Pirate Curling, it is hard to improve on the ords of Jim Woodward (former Senior Official with Canada Agriculture) which ere printed in Curling Chronicle, 1952-1973, as part of "Woodward Wisdom" hich reads:

"Our annual return curling jousts between the Staff of Macdonald College and the 'Old Boys' in Ottawa are now a tradition. Over the years, they have nurtured relations between Professors and Federal Officials based on neighbourly rivalry, a leaven to the shared interest in the welfare of Agriculture."

d as former Macdonald Dean, George Dion expressed it:

"Curling is a game of good fellowship — the long history of the Ottawa-Ste-Anne's rivalry for the Pirates' Trophy is good fellowship in the best tradition of the game — long may it last!"

It should be added that during these annual confrontations Dean Dion would transformed to "Demon Dion, Dean Blackwood would emerge as "Buc-neer" Blackwood and, of course, from time to time there were Special ards (appropriate in most cases) such as: Corn Broom Award, Last Straw ard, Stacked Broom Award, and so on.

Ed Leroux, Canada Agriculture (and former Mac Staff member) is ate Curling's silver-thatched, bilingual raconteur and acknowledged "Bon-mme."

No article on "Pirate Curling" could be written without recognition of the in-table C. Hamilton (Ham) Kenney. Since the early 1960s "Ham" has pep-ed us with puns, lashed us with limericks and, yes, he even had time to con-ute consistently competent curling on behalf of the Bytown Broomers. am" is Pirate Curling's Scribe — having written, edited, published, and nted "A Curling Chronicle", 1952-1973, in which he invented such gems as kippers Courageous and Pirates Outrageous." He followed his initial Pirate ccess with "Here Come the PIRATES" — featuring "Corsair" Woodward d "Rogue" Dion on the Cover.

f you would like to know more about the "Pirate Curling" — ask any Pirate!

Students Need Your Help

This is an open letter to alumni requesting help in developing competent talent for Canada. Many of you are already helping, but with the co-operation of even more alumni much more could be achieved.

Employment in the summer between study terms and in the first two years or so after graduation has a great effect on the motivation and professional development of students. Many students obtain useful summer employment which helps them deal with practical problems and encourages them to continue their studies and develop their talents to tackle an even greater range of problems in the future.

Unfortunately, some students have not been able to obtain employment in the summer months or after graduation and still others have taken employment as waiters, waitresses, painter's helpers and so on to earn a few dollars without the benefit of experience related to their studies.

There is a good demand for graduates who have five or more years of experience. The vexing problem can be to get suitable employment in vacation periods and the first years after graduation. This problem could be solved if each university graduate over his own working career could arrange to employ one student per year for six summers and would arrange to hire two new university graduates. The students have much knowledge, ability, and enthusiasm to bring to a job. They do need some guidance so that they can make their best contribution to the job objectives and get some useful experience.

There are employers who would like to have students from May through December rather than just through August. Others might wish to employ a student for the winter term. Some students take employment for the autumn term for at lest one year of their college career in order to gain useful experience.

Since university graduates are often in positions where they can generate useful employment, I appeal to alumni to make the effort to organize mutually useful employment for students and for themselves.

Robert S. Broughton, Professor
Department of Agricultural Engineering

CONVOCATION JUNE 3, 1983

A beautiful sunny June day and the conclusion of another successful Convocation finds members of the platform party lead by Pipe Major K. Mac Kenzie leaving the official ceremonies: Chancellor Conrad Harrington, Principal David Johnston, Dr. Donald McQueen Shaver, recipient of the Honorary Degree, and others. Below is Dean L.E. Lloyd's introduction of Donald Shaver.

Honorary Degree

It is my privilege to introduce to you, Mr. Chancellor, and to this Convocation, Mr. Donald McQueen Shaver, a distinguished Canadian, a self-made businessman, and an outstanding leader in agricultural development and production both in Canada and around the world.

Mr. Shaver was born in Galt, Ontario, where his interest in poultry breeding began at 12 years of age in his parents' back yard, the culmination of which was his founding of Shaver Poultry Breeding Farms Ltd., an organization of which he is currently Chairman and Chief Executive Officer.

Military service interrupted the development of this fledgling poultry breeding organization. From 1940 to 1945, Mr. Shaver served in Africa, then Europe, in the Royal Canadian Armoured Corps, attended Staff College and, by the end of World War II, was a regimental commanding officer. He was the youngest officer commanding a Canadian regiment at the time of his active service in Italy.

Immediately after his demobilization in 1946, Mr. Shaver re-established his poultry breeding operation. Ten years later, the first exports of poultry breeding stock were made and today these stocks, originating in Cambridge, Ontario, are licensed and distributed in more than 90 countries of the world. Since that time, beef cattle breeding has become part of the Shaver operations.

The world-wide success of Shaver Poultry Breeding Farms Ltd. has been achieved through the energy, vision, and enthusiasm of Mr. Shaver. Through his business operations, Mr. Shaver has been responsible for the development of the white egg layer Starcross 288 which has won the United States Department of Agriculture Summary of Random Sample Tests for 12 out of the last 14 years; no other stock in the world has come close to this record. Other accomplishments have been the development of a dwarf broiler breeder which consumes 20 per cent less feed than standard varieties and the development of a red feathered broiler which is in particular demand in the Far East.

Mr. Shaver pioneered sales to the People's Republic of China in the early 1960s and assisted in developing modern poultry industries in a number of other countries including India, Pakistan, Ghana, Burma, and Bangladesh. A significant factor which has led to the continued success of Shaver Poultry Breeding Farms Ltd. has been Mr. Shaver's insistence on the necessity for and the direction of intensive and continuing programs for the eradication of certain poultry diseases from their breeding stock.

Mr. Shaver has long played a leadership role with respect to the need for increased food production in less developed countries of the world. Through this initiative, Shaver Poultry Breeding Farms Ltd. has trained CUSO volunteers to go abroad and received a number of people from developing countries for training, particularly from Africa where he has been responsible for the establishment of a number

ove, Arlene Taveroff, seen here being congratulated by Principal Johnston, was the recipient the Governor General's Gold Medal in the School of Food Science. The Medal recipient in Agriture, Louise O'Donoughue, who also received the McGill Alumni Society Prize, was in Europe d. therefore, unable to attend Convocation.

A convocation tradition — the Agricultural Engineering Class pose for an array of photographers.

Jody Barclay from Senneville relaxing with friends after the ceremonies.

With parents and friends in the background, members of the graduating class watch as fellow classmates receive their degrees.

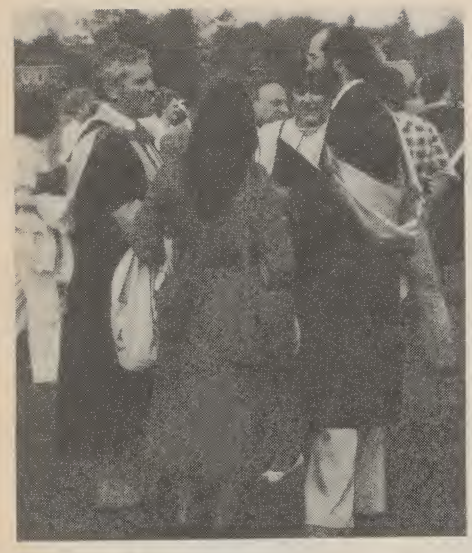
all-scale poultry production units for ining and self help. In addition to ese contributions, Mr. Shaver has en spoken out on the world-wide ortage of human foodstuffs. In this gard, he has little patience for reaucratic entanglement and exses instead of action. He has been outspoken critic of both the public d private sectors where business or ricultural development efforts were undering.

As an extraordinary world traveller, s said that Mr. Shaver is perhaps tter known in some areas of the world than Canada's diplomats. Mr. Shaver is a Past President of the Canadian Hatchery Federation, Poultry Products Institute of Canada, International Maine-Anjou Association, Canadian Lincoln Red Association and a Past Director of the Canadian Export Association. He is a member of the Waterloo County Hall of Fame and an Honorary Life Member of the World's Poultry Science Association and the Ontario Association of Agrologists. He was awarded the Centennial Medal by the Ontario Agricultural College.

In recognition of his national and international contribution to agriculture and world food supply, Mr. Shaver was appointed a member of the Order of Canada in 1978.

Mr. Chancellor, may I present to you, so that you may confer upon him the Degree of Doctor of Science, *honoris causa*, this distinguished businessman and leader in the agricultural community of the world, Mr. Donald McQueen Shaver.

L.E. Lloyd, Dean
Faculty of Agriculture



Professor R.K. Stewart with Ph.D. recipient Charles Vincent.

A short but well received address was given by the Valedictorian Odette Ménard from Granby, Quebec, who majored in Animal Science. This address was followed by an Honorary Degree being conferred upon Mr. Shaver. The major part of Mr. Shaver's speech will be featured in the November issue of the Journal — the agribusiness issue. In his concluding remarks to the graduating class he warned them that to succeed in business, one must "be prepared to work a little harder, a little longer," and he went on, "if you aspire to be a leader, cultivate the grace to assume responsibility for failure, whether you deserve it or not — and share credit with others, whether they deserve it or not."

Majoring in Consumer Services, Charlotte Anne Griffith of Richmond poses with Lanita Carter of the School of Food Science.

KENYA GOVERNMENT SCHOLARSHIP STUDENTS VISIT CANADA

by Hazel M. Clarke

In 1981 about 62 Kenyans flew over to Canada. Most were to undergo a two-year B. Ed. Study Program and a few were enrolled in various B.Sc. programs. Of those Kenya Government Scholarship Students 12 came to the Macdonald Campus, seven of whom were enrolled in B. Ed (Voc) majoring in Agriculture and five, including one woman, were enrolled in different B.Sc. programs. The teachers completed their program this spring but, unfortunately, had to return home before Convocation. "The original plan was that we leave after Convocation," Aggrey Nyanjom told us before his departure, "but due to unforeseen financial restrictions, we had to return earlier."

Mr. Nyanjom and his colleagues were Primary Teachers College and high school teachers from different areas of Kenya. They were selected to study in a Commonwealth country and, for a change of location, Canada was chosen. These students usually go to England or Australia, but Canada was chosen for a change and because it was at the time the least expensive. As it turned out, the new fees imposed by Quebec on foreign students made financing of the program quite expensive.

Macdonald's Associate Dean of Student Affairs and Public Relations Jean David set up a special program for the Kenyans which included courses mainly in plant science, animal science, and economics. Throughout their program they were studying education courses offered by Faculty of Education professors under the advice of Professor Gregory Patton. "We had a good general agriculture course," Aggrey Nyanjom told us. "I'm very pleased to say that we did well in our studies and I think that many of the practices that we learned here can be applied at home even though we are going back to tropical agriculture conditions." Mr. Nyanjom's one regret was that the program to train teachers of agriculture was prematurely discontinued after the first intake.

Some Kenyan students took advantage of the opportunity to travel quite extensively in eastern Canada and the United States. The cities, villages, and farms they visited plus their stay at Mac will certainly be the topic of conversation when Aggrey Nyanjom and his colleagues, who are all members of the Kenyan Agricultural Teachers Association (KATA), meet at conferences and meetings in the years to come. Mr. Nyanjom found the professors and staff very friendly and helpful. "The experience has been very worth while for all of us, and," he concluded, "I feel similar arrangements should be made for other groups in the future."

As a sequel to Hazel's article about the Kenyan students, I am pleased to be able to report that the University, through Faculty of Education staff members who will be in Kenya, will have a degree presentation ceremony. Although details are not currently available, the indications are that the ceremonies will take place in Nairobi sometime in the autumn.

Stephen Olive,
Registrar.

Prof Profile

ne College Campus has always en a part of my life,'' Professor Flo- ce A. Farmer said recently in an erview for the Journal with Emeritus ofessor Helen R. Neilson, former ector of the School of Food ence. As Professor Farmer pre- es for retirement later this year, we y take comfort in knowing that she won't be too far from the Campus uld her advice or expertise be eded.

Professors Helen Neilson, left, and Florence Farmer share a few thoughts on their long and successful association with Macdonald College.

lelen Neilson: *I know that you were n in Ste. Anne de Bellevue and that have lived here all your life. When your parents come here?*

Florence Farmer: My father came Montreal with a scholarship in engi- ering from Liverpool, England, and ned a Master of Engineering gree at McGill in 1896. He then went the United States but returned to ain soon after, where he married. 1908 my parents migrated to ada and in 1914 bought a home in . Anne de Bellevue, on Maple Ave- . He established his own consulting but in 1935 he joined the well- own firm of consultants, the Mon- al Engineering Company, where he ained until his death. He was still fessionally active into his eighties r.

Helen Neilson: *We were in the ne class in Household Science at cdonald College, but I lost track of for a few years after we gradua- in 1939. What did you do?*

Florence Farmer: After a spell in etics at the old Montreal General spital, which was then located east St. Lawrence Main, I went to onto where I worked with children two years. I enjoyed the work in onto but when I came home on one asion, Dr. Earle Crampton, who s the relatively new Professor of rition, offered me a job as a tech- an and I was drawn back to Ste. e's. He soon persuaded me to oll for a Master's Degree. I worked he nutritional requirements of the nea pig. After obtaining my M.Sc. ree, I took a position with the Char- E. Frosst pharmaceutical firm.

lelen Neilson: *When did you ide to enroll for a Ph.D. degree?*

Florence Farmer: Quite soon. I enjoyed working with Dr. Crampton and consulted him about continuing my studies. He encouraged me to go to Cornell University where I worked on folic acid in the Department of Poultry Nutrition. I returned from Cornell to complete the requirements for the Ph.D. degree at McGill. My thesis was on the effect of thiuracil and desiccated thyroid on the thyroid gland of the guinea pig.

Helen Neilson: *When did you join the staff of the Nutrition Department?*

Forence Farmer: Immediately after finishing my thesis. First I worked as a demonstrator and was appointed as an Assistant Professor in September 1948. There were three of us on the staff then: Dr. Crampton, George Ashton, and me. I mustn't forget the department's faithful and vocal laboratory helper, Mrs. Trigg, whom we all remember for her sense of humor and her impish tricks. In those years, there were separate departments of Animal Husbandry under Lionel Hamilton and Poultry under Alf Maw. Later, all three departments, plus Genetics, merged into the present Department of Animal Science in 1961.

Helen Neilson: *I remember Dr. Crampton first as a superbly well-organized teacher of the undergraduate course in nutrition and later as my director of research. What were his interests when you were a member of his staff?*

Florence Farmer: Dr. Crampton had a very wide range of interests. He was concerned with the lack, at that time, of a precise knowledge of the nutrient values of foods and feedstuffs in Canada. He was instrumental, with others, in establishing a Canadian Nutritional Standard for humans. He pioneered in comparative digestibility studies. He was involved in a project on wheat and was a consultant to Canada Packers on the fat content of bacon. He was interested in Vitamin C and also in the polymerization of linseed oil; he hoped it could be used for foods and feedstuffs.

Helen Neilson: *You worked with Dr. Crampton for 11 years. What was he like as a colleague?*

Florence Farmer: He was somewhat shy and reserved. He was meticulous about everything he did. I suppose one might say he was a perfectionist. He was a hard worker and expected it of others. One of his chores for Faculty was to prepare the course timetable which he did for many years but without the help of the computer!

To the students Dr. Crampton was always gentlemanly and kind. He was never too busy to discuss their projects. He actively sought funds to support his growing number of graduate students which increased rapidly after the war. Dr. Lewis Lloyd was one of the veterans who returned to graduate studies; he later joined the staff of the Department of Nutrition and replaced Dr. Crampton on his retirement.

Although we who worked with Dr. Crampton appreciated his leadership, it was later that I realized what an outstanding teacher and researcher he was and what a privilege it was to have

been a member of his staff.

Helen Neilson: *What was Gordon Ashton's role in the Department?*

Florence Farmer: Gordon was a superb statistician. Dr. Crampton insisted that all experiments and projects be properly planned and analyzed. We had only hand operated calculators, so it meant long, tedious hours of work. Perhaps that is why I have enjoyed working with modern computers in determining the nutritional value of dietary intakes.

Helen Neilson: *While you were in the Nutrition Department, what research were you interested in?*

Florence Farmer: I worked on many of Dr. Crampton's projects, such as: the vitamin C work, the heated fats and the digestibility studies. One project involved chinchillas whose nutritional requirements I studied. They were hard to handle and inclined to bite.

Helen Neilson: *After 11 years in the Nutrition Department you went to India?*

Florence Farmer: Yes, I went to Madras to the Women's Christian College which was part of the University of Madras. That was in 1959. I remained there until 1964. I taught experimental foods, physiology, applied community nutrition and supervised graduate studies in nutrition. The graduate projects involved children with protein-energy malnutrition and anemia. The graduate students also did research on rural and urban nutritional problems, many of which were the direct result of poverty. Although the scope for nutrition research was unlimited, the lack of funds to support it was always a limiting factor. At the Madras General Hospital, I saw stark examples of most of the medical problems directly related to malnutrition.

Helen Neilson: *Was the language a problem?*

Florence Farmer: Not really. Although Tamil is spoken locally, the students all spoke English, and there were always volunteers to translate for me when I went out to the rural areas.

Helen Neilson: *In five years you must have seen quite a lot of India.*

Florence Farmer: Yes, I was fortunate. Not only did I travel widely in India, but I was invited to the homes of staff and students. I have been back since for a holiday, and I still delight in my contacts with ex-students and friends. The sights and sounds of India will remain in my memory always. I like to think that at the end of the five years I was beginning to see things from the Indian point of view.

Helen Neilson: *After your return you joined the staff of the School of Household Science, where you have now completed 19 years. Was it hard to return?*

Florence Farmer: Well, students are really the same everywhere and although I missed the excitement of life in India, I was soon drawn back into the routines of the academic year here. I have always enjoyed teaching undergraduates and I found it most rewarding. I am particularly proud and happy about their successes. In June, for instance, at the Federation Meetings of the Biological Societies, one of our students, Stanley Kubow (1978) was awarded the graduate student award for the best paper presented to the Canadian Society for Nutritional Sciences.

Helen Neilson: *What were your research interests in recent years?*

Florence Farmer: I worked with Dr. Idziak on a project related to the irradiation of chickens. Out of this grew my interest in flavour assessment, which led to work with Domtar on the effect of the effluent from mills on the flavour of fish. Later, I did similar work for the State of Vermont, which led to being called to testify in court in New York City, in a case against the State of New York by Vermont. I was quite nervous. The questions were mainly about the statistics which I had applied to the findings, but Dr. Fanous had kindly coached me and we won our case. It is quite an experience to be harassed by opposition lawyers, but the Judge was kind.

I have been interested in the nutritional value of foods since my association with Dr. Crampton and I have analyzed foods of the Arctic and sub-Arctic regions. I sometimes received strange shipments of mink and other delectables from the far north, via Dorval, often in various stages of decomposition!

Helen Neilson: *For six years you served as Secretary to the Faculty.*

Florence Farmer: Yes, it was a long stint but I enjoyed working with the Staff and experiencing the splendid cooperation that exists between members of this Faculty. I also chaired the Committee on Academic Standings. This was one way of getting to know all the students who were experiencing academic difficulties. I enjoyed helping them and keeping track of their progress. Similarly, I used to coach first year students who had trouble with physics and mathematics. It kept me up to date and I am pleased to say I still hear from some of those students at Christmas.

Helen Neilson: *You had ouside interests, too.*

Florence Farmer: For six years I was a member of the United Church Standing Committee on Agriculture and Food Resources. I was the only woman, the only nutritionist, and the only Quebecer. Dr. Broughton is now a member of that Committee, so Macdonald College and Quebec are still represented.

I have always been interested in the Girl Guide movement and continued my interest in the work in India. In 1967, Professor Di Raymond and I planned the quartermastering for the International Centennial Camp at Morrisburg, Ont. For five years I was the Secretary of the Nutrition Society of Canada, and I have attended many interesting International Nutrition meetings.

Helen Neilson: *You have seen a lot of history happening at Macdonald College over the last 40 years. What is your assessment of the present situation and our future?*

Florence Farmer: The College Campus has always been a part of my life, first as a playground opposite my home, where its extensive lawns and relatively uncluttered spaces are part of my childhood memories. Later, when I was an undergraduate, I identified closely with the old buildings. Now I pass that part of the Campus with a real feeling of detachment. I have learned to think of Macdonald College as our group of buildings on what was once the East Campus.

Despite the difficulties of the last few years much of the dedication and enthusiasm of the staff has survived miraculously. I am encouraged by the strength of the new program in dietetics and I see a real future for Food Science *per se*. Perhaps the best news of all is the recent establishment of the Centre for Nutrition and Food Science which, I hope, will unite those interested in animal, poultry, and human nutrition again, so that the rapport we once knew under Dr. Crampton's guidance will be re-established.

TROPICAL AGRICULTURE FIELD TOURS

Professor Eugene Donefer
epartment of Animal Science

rly 1983 saw the introduction of a w course to the Macdonald cur- ulum — A Tropical Agriculture eld Tour.

Interest among undergraduates the course in International riculture (previously called Com- rative Agriculture) has been very ong during the seven-year period it s been given (under the direction of ofessors Howard Steppler and Eu- ne Donefer and of Martin van rop), but the description of tropical uations has been limited to read- , slides, and personal descriptions the instructors.

The Field Course was designed to e the students (predominantly nadian) an intensive survey of pical agricultural systems with ny examples of crop and livestock duction. The first tour was con- ted in Jamaica over a seven-day iod in early January — between ms — with a group of 11 people in- ding two staff members, Martin Lierop and Eugene Donefer.

All arrangements in Jamaica were anized by the Training Division of Ministry of Agriculture, including using at a Ministry Training Centre Central Jamaica, Chistiana, and transportation to most of the icultural areas of the island.

After 10 to 12 hours per day of tour- such enterprises as vegetable ms, sugar factories, livestock ns (both Alcan and private), an in- rated rural development project, a istry Research Farm, and a keting cooperative, one to two rs per evening were used to uss the daily experiences.

he success of the trip was related Ministry of Agriculture ar- gements, the good will of the peo- during our visits, and particular from Macdonald alumni dispers- throughout the Jamaican agri- ural scene.

lthough expenses were minimiz- due to charter fares and non ist accommodations, the student icipants had to pay the entire cost indicated they got more than r money's worth.

In Jamaica the group visited a nursery and are seen here inspecting mango plants. Cedric Gordon, recent Macdonald graduate, B.Sc. (Agr.) '79 and M.Sc. (Agr.) '82, is in foreground (checkered shirt). Cedric is Nutritionist at the Bodles Research Station of the Jamaican Ministry of Agriculture.

The Macdonald group with some of their Cuban hosts. Picture is taken in front of Canadian-Cuban Friendship High School in Havana Province. A system of "schools in the country" is located in major agricultural areas, where city children are in residence during the week and spend about half of ther time working on vegetable production farms.

Cuban Trip

Following the first field tour conducted in early January, the second tour, this time to Cuba, took place in early May. The Macdonald group of 20 consisted of staff, postgraduates and undergraduates representing many areas of agricultural interest.

The tour was well organized in Cuba by the Institute of Agricultural Higher Education of Havana Province and included visits to three research institutes (Animal and Plant Disease, Agronomy, and Animal Science) and to experimental stations involved in sugarcane and citrus crops. State farms visited included the Picadura Valley dairy (Holstein) production plant and a large vegetable production farm.

The seven-day schedule also included cultural and social activities so that it was an exhausted group that arrived back in Canada.

With this beginning we look forward to future tours and an expansion of the Macdonald College program in international agriculture.

E. Melville DuPorte

A. Macdonald Great

**by Professor Robin K. Stewart,
Chairman,
Department of Entomology**

When I arrived at Macdonald College in 1966, Dr. DuPorte had already been "retired" for nine years. Nevertheless, one would never have suspected that he was retired, given that he came to the Department of Entomology for a full day's work every day, a habit that he continued almost to the time of his death on July 31, 1981. During the 15 years in which I had the privilege of knowing him personally, I developed a great regard and affection for this great scholar and truly gentle man.

Melville DuPorte's association with Macdonald College spanned over 70 years during which his qualities of intelligence and integrity combined with humour and human kindness endeared him to students and colleagues alike.

He was born on October 24, 1881, on the Island of Nevis in the West Indies and from the very beginning of his academic career he showed outstanding ability. He attended St. Kitts-Nevis Grammar School where he demonstrated a penchant for natural history and earned a university scholarship. Fortunately for Macdonald College, he chose us over the University of London and came here in October 1910. At that time, he was a keen horseman and he did tell me that he was influenced in his decision to come here in the mistaken belief that Canada was a place where horseback was the major method of transport. Still his misunderstanding was our good fortune and, although he did not fulfill his expectations of riding the range, he settled right in to the Macdonald lifestyle.

He loved to tell the story of his "hazing" as a new student. On being thrown, clad in pyjamas into the Brittain Hall swimming pool, he swam underwater to the far end of the pool and remained under long enough to surface to the sight of his tormentors floundering around in the water fully dressed looking for his body. Although he did not get the experience in riding that he expected, he did get to exercise his excellent athletic abilities and indeed he became an enthusiastic and very proficient golfer, winning many trophies for this sport.

Melville DuPorte was undoubtedly one of the best students ever to pass through Macdonald. He completed the four-year B.S.A. course in three years and graduated first in his class with a final average of 94 per cent. When he graduated, the Macdonald Administration had the good sense to offer him an assistantship and he began a teaching and research career at Macdonald that he pursued actively until shortly before his death.

He was the first Macdonald graduate to obtain his M.Sc. (1914) and his Ph.D. (1921), and he progressed through the academic ranks to Full and Post-Retirement Professsor of Entomology and Plant Pathology.

It is as a teacher that Melville DuPorte is most remembered. He was brilliant in his field and taught a wide variety of subjects other than Entomology. He set very high standards for himself as well as his students and his Zoology 220 course is a legend. The present Dean of Agriculture, Lew Lloyd, relishes the fact that he passed the course first time, especially after talking to eminent colleagues in later years and finding out how many of them had multiple attempts at it. Dr. DuPorte's attention to quality was recognized by McGill when they replaced the old B.S.A. degree with the B.Sc. (Agr.) in 1932-33. His were the only courses in the Faculty of Agriculture which met the required standards without change. Throughout his career at Macdonald he insisted that the Faculty of Agriculture maintain its reputation as a proud and fully integrated faculty of McGill.

Although in his research he is best known for his work on insect morphology, he carried out investigations in many fields. He directed many graduate students in a variety of projects, but it is typical of this modest man that he did not put his name as co-author on the many publications coming from his work. When he told me of the administrative and teaching load that he carried for many years I was astounded that he managed to do any research at all. He used to laugh and say that most of his research was done after he "retired."

Much as I remember him for his intelligence and industry, it is as a warm and human person that I personally remember him most. I know from other people that life was not always as kind to him as it should have been. Recognition of his efforts was not always quick in coming, but Melville DuPorte was not the type of man to complain of this. He was fortunate in his marriage of 45 years to his devoted Peggy. To see them together was to understand how her support allowed him to handle life's problems with equanimity and reach a level of serenity that was enviable. To be in his company was always a pleasure, as he could recall with humour and great enjoyment many incidents of his life at Macdonald.

I do not imply that he received no recognition, because he did receive numerous scientific honours, including an Honorary Doctorate of Science from Carleton University and honorary memberships in the Entomological Societies of Canada and Quebec. In 1980 the Quebec Entomological Society established a prize in Dr. DuPorte's name and the Department of Entomology, supported by the Dean of Agriculture, honours him by presentation of an annual E. Melville DuPorte

December 15, 1981, a plaque to commorate Dr. E. Melville DuPorte's 70 years at cdonald was unveiled by Mrs. DuPorte.

lecture. Of all the honours accorded him, however, the one which undoubtedly gave him most pleasure, was a cross-Canada tour for himself and Mrs. DuPorte. This was financed by 137 of his former students on the occasion of his "retirement" in 1957, and the two of them cherished this event greatly recalling frequently how they visited with these former students right across the land. In addition to erecting a plaque in the Library, the Department of Entomology is also now in the process of establishing a fund so as to offer an annual award bearing Dr. DuPorte's name to enable a worthy graduate student to pursue studies in the Department which owes so much to the pioneer efforts of this great gentleman.

Dietetics Update

Attention all graduates in dietetics! If you have been out of the profession for a number of years and would like to bring yourself up-to-date, do read on. A series of lectures on current topics in foods and nutrition will be presented by staff from the School of Food Science beginning October 4, 1983. There will be eight sessions of two hours each on Tuesdays **either** in the morning **or** in the evening. If you are interested, please contact Extension Services, 457-2000, Ext. 384 or Dr. Shirley Weber, Ext. 338.

EW GREENHOUSE SPACE

Professor Jean Peterson
epartment of Plant Science

e last phase in the building camign undertaken to reestablish the iculty of Agriculture and School of od Science in new quarters was mpleted during the fall of 1982 nen the Plant Science Department scontinued use of the former Biology" greenhouse and moved aterials into approximately 4,600 uare feet of new greenhouse ace. The first addition, completed st winter, extends south from the d, (former horticulture) greenhouse. e second "L" shaped extension, tending west and south, includes area having only the south face of e roof glazed. The north wall is solid order to conserve energy. Studies ve indicated upward of 30 per cent ergy is lost through a glazed north all. Ventilation is effected by a thermostatically controlled exhaust ounted in the peak.

Two potting-work areas are now ovided. One immediately on your t before entering the greenhouse is undergraduate testing use — ostly courses in vegetables and riculture. The other along the north all of the new extension is for search use only.

The greenhouse complex has been vided into two areas. The area as u enter the greenhouse from the aymond Building is reserved for splay and undergraduate teaching.

Above: the new greenhouse adjacent to the Raymond Building. Below: an informal party given by the Department of Plant Science "opened" the new greenhouse. Among the participants were, left to right, Professor Howard Steppler, Julia Casey Common, Professor Alan Watson, and Professor Deborah Buszard.

The new addition and the Summerby Greenhouse are to be used for research.

Finally, the westerly section of the Summerby Greenhouse has been designated a research section for Entomology. It has been sealed off from the remainder of the greenhouse and provided with its own potting room-work area with access from the outside.

Reflections on Macdonald in 1912

We are indeed fortunate in this issue to capture very vividly a small segment of Macdonald's past as recalled by Mrs. Eva Vineberg who took a three-month Homemaker's course at Macdonald College in 1912. Mrs. Vineberg, a spry and charming 91, is a resident of Westmount, Quebec. A great deal of teaching, demonstration, and actual doing was packed into those three months and a prize possession of Mrs. Vineberg's is her clear and concise notes painstakingly worked on at the end of each day's lectures. She has often referred to them in the intervening years of marriage, caring for a home, and bringing up two daughters. Much of the information is still pertinent today; some is still being included in a modified form in different programs in the School of Food Science. Recently the Editor of the Journal and Liz Jennaway-Eaman, Faculty Lecturer in the School of Food Science chatted with Mrs. Vineberg and her two daughters: Dusty Vineberg-Solomon, who graduated from the downtown campus of McGill and was a reporter for the Montreal Star, *and Trina Berenson, who received her B.Sc. (H.Ec.) in 1952. A dietitian, Trina Berenson was Food Editor of the* Family Herald *for 10 years and is the author of the cookbook* "Family Heirlooms."

Mrs. Jennaway-Eaman, who studied Home Economics in England and did her Masters degree in Home Economics Education at McGill, teaches textiles, clothing, and family management courses.

The following is an edited version of the delightful discussion that spanned some 71 years of homemaking, home economics, food, needlework, teaching, and Macdonald.

Enthusiastically discussing the notes taken in 1912 by Mrs. Eva Vineberg, centre, are Liz Jennaway-Eaman, left, and Mrs. Vineberg's daughter, Trina Berenson.

Liz Jennaway-Eaman: *What made you choose to go to Macdonald?*

Eva Vineberg: I was a few years older than the other girls who were at Macdonald fresh out of school. I had been looking for something different. In those days you could only get instruction to be either a nurse or a teacher. I didn't like nursing that much although I did do some later, and I didn't want to teach even though I have since done that, too. I was interested then and still am in design and interior decoration. Even though I have helped many friends to decorate their homes, I have been frustrated all my life in that I am not a professional.

Liz Jennaway-Eaman: *It is true that the programs in Household Science in 1912 were the popular three-month short course, which you took and which existed until the 1920s, or a one-year certificate, or a two-year diploma course in Institutional Administration. It was not until 1919 that students were permitted to take a four-year degree program culminating in a Bachelor of Household Science. However, Katherine Fisher, who was the Head of Household Science while you were at Macdonald, worked hard to upgrade the scientific content of the course before she left to become the founder of the Good Housekeeping Institute in the United States.*

Do you recall her or any of the staff?

Eva Vineberg: I remember some absolutely marvelous teachers; I also remember that we seemed to be scared of most of them! Cookery was the biggest course and that was taught by Mrs. Rutter. I remember learning a lesson the hard way. I dumped some garbage in a garbage tin in the pantry off the kitchen and Mrs. Rutter must have gone into the pantry after me. I had to write 100 times, "Never use the garbage tin unless it is lined."

Liz Jennaway-Eaman: *What abo equipment? Was it modern for 191*

Eva Vineberg: We used gas and ha electric ovens. Mrs. Rutter said she ed electric ovens but did not like to stove cooking with electricity becau you could regulate the gas more. W each had a gas burner and a cupboa beneath for our utensils. Another th I recall about this course was that the taught us that people doing physica work needed an entirely different di from people doing office work or othe sedentary occupations. That wa unheard of in those days; they fe everybody alike no matter what the were doing.

Liz Jennaway-Eaman: *Yes, I see breakfast menu for "a man w shovels snow" followed by a lunche menu for "a woman with very little oc cupation and suitable for hot weather There is so much in your notes that w are still teaching in menu planning. Fo example, here is "Points to be co sidered in making out dietaries" an the list includes "income, ages in th family, occupation of the adu climate of the country, season of th year, size of family, and health o family."*

Eva Vineberg: Looking back I wo say it was very advanced. M goodness we learnt an awful lot those three months starting September. Cooking was our bigge course, followed by Dairy, which w

ught by Miss Reid. She was another nderful teacher.

z Jennaway-Eaman: *There is a lot science in the Dairy section. I also e that you were taught about the different breeds of cows and the composition of milk. It looks quite thorough.*

a Vineberg: We were also taught all out churning, making butter, and different types of cheese. I remember, in rticular, that we made Cheddar eese and cottage cheese, and we ed to eat some of it because we re so hungry. I'm afraid we didn't d the food in residence very good. nly got to Montreal about every six eks, but my mother used to send od hampers out to us with things like whole roast chicken. We had to be the grounds by six o'clock every ht or we would have been expelled we had been out later, but I do member that the Hudson Bay House Ste. Anne's had a marvelous tea and rved wonderful chocolate cake. I nk that saved our lives many a time! lso remember that Mrs. Rutter found at I could bake cookies so I spent my turdays making cookies for afternon tea at the church.

z Jennaway-Eaman: *I'm fascinated at some of your notes are similar to ose I was given in the 1960s, particularly in laundry methods.*

a Vineberg: Yes, what I learnt in undry, particularly ironing which I d never done before, has stood me good stead all these years. We rnt all about the different materials, the different stains and how to move them.

Speaking of laundry, I remember s girl from Halifax who had been nt to Macdonald to get over a love air. All the professors except one alized that she had never been in a chen or done any housework and ver would. We covered for her when could, but one day she was put in arge of the laundry. She was told to n off the drier which was like a om, not like today's machines. The I forgot and, of course the clothes rned.

The worst thing that happened was at she was told to clean the stove. you know they used black lead on e top in those days. The poor girl put the tops in water — she and the ove were in the most dreadful mess. lso remember that this girl was go- to Ottawa to be presented to the uchess of Devonshire, and we had just made a soup called Duchess Soup. She thought she should take some with her and present it to her so that the Duchess could taste the soup that was named after her!

Liz Jennaway-Eaman: *I came to Macdonald when Professor Marjorie Jenkins retired, and she had an historic costume collection which included one of the uniforms worn back in the early 1900s. Do you remember them?*

Eva Vineberg: Yes. Those horrible green stripes with a stiff white collar and a white apron. I am always amazed at some of the clothes we wore in those days. My mother kept a description of what we wore — it must be 80 years ago now — at the closing exercises at Barnjum Gymnasium. I had on a heavy red flannel blouse with long sleeves, a black velvet skirt, hand-knitted woollies similar to panty hose, and mocassins. Imagine doing gymnastics in those clothes!

Liz Jennaway-Eaman: *In your notes for Household Accounts there's a comment attributed to Dean Russel of Columbia University that I like: "Family success depends quite as much upon the wife's ability to live well upon the husband's income as upon the husband's ability to get a living wage."*

Eva Vineberg: Much of what was taught by Miss Robins in that course has been very useful. In those days — 1912 — most women hadn't had any education in finances of any kind. Women left school, got married, and their husbands handed out so much money. They had no idea of budgeting or of keeping accounts. I know older women today who don't even know how to write a cheque. But using things and not wasting, running a home economically and getting good value for what you are spending is all terribly important. That course was filled with good, practical information.

Liz Jennaway-Eaman: *In your notes it says that whoever is most capable should do the housekeeping, and that is exactly what I teach my students. What other courses were there?*

Eva Vineberg: My grandmother did beautiful needlework and taught me so I had training for the course in Needlework. We made hats out of green felt, I remember. They weren't terribly attractive, but we did learn how to structure a hat — frame and all. We also had Home Furnishing with Miss Whetmore. I made and upholstered a lovely stool for my mother's bedroom. I loved that course.

Liz Jennaway-Eaman: *I see you studied about different furniture and its history. With your interest in decorating this might have been the course that drew you to Macdonald in the first place. You also had a course in Home Nursing.*

Eva Vineberg: Yes, I guess that must have helped me when I went out to do nursing at the Veterans' Hospital in Ste. Anne de Bellevue after the first World War. While there I also remember shovelling the sawdust out of the ice box — remember we used ice in those days and because it was packed in sawdust it was difficult to keep the ice box clean. When you opened the door at night, you would be greeted by little mice that had got in through the pipe. Before that, during the War, I did Red Cross work, and I taught knitting at the Baron de Hirsch Institute. I remember teaching an older lady how to do the new Kitchener toe, and she couldn't get over having someone so young teach her anything new in knitting. I finally married and had two children, and I always loved managing a home and cooking. I wasn't bored then and I'm never bored now. If you like what you're doing, it's not work. If you do things you don't like — that's work.

Mrs. Vineberg has a wonderful outlook on life, and it was a real pleasure to meet with her and to share her experiences of one of the early years in the School of Household Science.

Today the School is still committed to educating people for life. Although the diploma, certificate, and homemaker courses no longer exist, degrees are offered in: Consumer Services, Dietetics, Food Administration, Food Science, Nutrition, and Home Economics Education in conjunction with the Faculty of Education. In contrast to Mrs. Vineberg's era women have many career choices available to them, but both men and women are recognizing that there are worth-while careers in the areas traditionally reserved for women. Starting in September 1983, Home Economics is being recognized as an essential course for all boys and girls in secondary schools in the province of Quebec. I hope they have as good a preparation for life as Mrs. Vineberg received in three months at Mac in 1912.

PLANT BREEDING AT MACDONALD . . . . . AN HISTORICAL PERSPECTIVE

by Professor H.R. Klinck
Department of Plant Science

This 1935 photo shows the Poultry Cottages at Macdonald as a background for a field of Carter

During the 78 years of its existence Macdonald College has made a significant contribution to Canadian agriculture through the development of new varieties (cultivars) in agronomic and horticultural crops. It is the purpose of this paper to provide an historical perspective of our plant breeding activities and some of the people involved.

One of the first departments to be organized when Macdonald College started in 1905 was the Cereal Husbandry Department. This was renamed the Agronomy Department in 1921, and in 1976 the Agronomy, Horticulture, and Plant Pathology Departments and a Plant Genetics unit were amalgamated to form the Plant Science Department.

When the Cereal Husbandry Department was organized one of its main objectives, apart from its educational responsibilities, was to produce new varieties that would be suitable for the climatic, soil, and economic conditions of Quebec. From the outset major attention was given to the improvement of those crops of greatest economic importance through breeding. At that time plant breeding in Canada was in its infancy. The Central Experimental Farm at Ottawa and the Ontario Agricultural College at Guelph had been working with grain crops for a number of years, but only a few varieties had been developed and not many were being used. Practically no forage crop breeding was being done in Canada, and no crop breeding was being carried out in Quebec. In grain crops, much seed was being offered for sale by variety name, but often it was commercial grain with no known pedigree or foreign varieties that had not been adequately tested in Canada. In corn, varieties being sold had been developed in the United States where conditions were quite different. The Canadian Seed Growers' Association and government seed regulations were just in the early stages of development and their influence had not really been felt. There was a great need, then, to study existing crop types and to develop new ones better adapted to our conditions.

While new genetic combinations can be produced easily in large numbers, it is not easy to find those that are superior. A breeder may develop thousands of strains but find that after testing them for several years even the best ones are no better than existing varieties in commercial production. Over the years plant breeders at Macdonald College have worked closely with other institutions to ensure that only those varieties that are superior are distributed to the farming public. This, of course, supports the principle of the licensing system under the Canada Seeds Act and the aims of the Canadian Seed Growers' Association.

Selection and breeding work at Macdonald College was started with grain corn in 1906, barley and oats in 1907, timothy, orchard grass, mangels and swedes in 1911, fall wheat in 1912, and fall rye in 1914. Breeding programs with other crops such as alfalfa, soybeans, spring wheat, and carrots were carried out for a few years but eventually were dropped. Work with red clover, birdsfoot trefoil, rhubarb, and tomatoes was started much later.

The man responsible for setting up the Cereal Husbandry Department and laying out the experimental fields was Dr. Leonard S. Klinck. From a breed standpoint his greatest success w with corn and he released the var QUEBEC 28 in 1914 before leavin become Dean of Agriculture, a subsequently President, of the Univ sity of British Columbia.

The corn work was taken over Professor L.C. Raymond who jo the Department in 1913. He releas IROQUOIS in 1929 and ALGONQ in 1932, both varietal hybrids invo Quebec 28 as one parent. Both we extensively grown in Quebec as sil corn, and production of Algonquin this purpose continued until ab 1970.

Professor Raymond's interests e tended well beyond that of corn, evidenced by the developme through his efforts, of LAURENTI swede in 1935, still an impor rutabaga variety almost 50 years la and FRONTENAC mangel in 1940

Another well-known figure from early days, until his death in 1946, Professor Robert Summerby. He w interested in cereals and releas HORTON fall rye in 1919, a var which has only recently been remov from the license list, and BANNER MC oats in 1922. Banner was used a number of years by the Quebec Department of Agriculture as ba stock for field crop competitions

or oat seed centres. It was widely grown throughout Quebec, and to some extent in other provinces, during the 1930s.

Professor Summerby, working with Professor Emile A. Lods, released the winter wheat variety, KHARKOV 22 MC in 1923, a variety recognized for many years as the best source of winter hardiness germ plasm. Its production in eastern Canada was very limited, but a quotation from Dr. O.S. Aamodt of the University of Alberta in a 1934 Extension Circular relative to winter wheat reads "Kharkov 22 is the most commonly grown and is probably the most suitable variety for Alberta." Pedigreed seed production continued until about 1964.

A major contribution to variety development was made by Professor Lods in his own right. Between 1932 and 1954, when he retired, Professor Lods released five oat varieties: CARTIER (1933), LASALLE (1938), MABEL (1940), ROXTON (1943), and SHEFFORD (1954), and four barley varieties: OXFORD (1933), BYNG (1936), PONTIAC (1937) and MONTCALM (1945). His oat varieties were noted for their low hull content. The late maturing variety, Roxton, is still produced, albeit on a small scale, 40 years after its release. Cartier was also widely grown in Quebec and parts of Ontario for over 30 years. Lasalle, Mabel, and Shefford, on the other hand, were never widely accepted by farmers. Lasalle has heavy awns, making the grain unattractive; the grains of Mabel were a light brown colour, giving the impression of weathered oats; the grain of Shefford was bulky and had a low bushel weight because of its long tips. We also had reports that Shefford produced a very slippery straw which made loads of sheaves difficult to build. This was in the days of stook threshing before combine-harvesters came into common use in Quebec.

Montcalm became the most widely grown malting barley in North America during the 1950s, for which Professor Lods received recognition by the brewing and malting industries. However, pedigreed seed production stopped after 1969 with the expanding interest in newer malting barley varieties developed at the Agriculture Canada Research Station at Brandon, Manitoba. The non-malting variety, Pontiac, was extensively grown in Quebec for over 30 years, while Byng and the hulless variety, Oxford, were produced on a relatively small scale.

Professor Lods also managed the Provincial Seed Farm from its inception in 1921 until 1959. The Farm was located at Ste. Rosalie until 1931, then continued at Macdonald College until 1970. The Seed Farm was established for the purpose of supplying high quality seed of superior varieties of cereals, forage crops, corn, and at times, sugarbeets, field beans, etc. A 120-acre tract of land was provided by the College, along with the administration of the seed production program, while the Quebec Department of Agriculture supplied labour and equipment and was responsible for distribution of the seed to seed centres for further multiplication by good growers. The program was phased out in 1970 following organization and significant development of the Quebec Seed Growers' Association.

In 1930 Professor J. Norman Bird joined the Agronomy Department staff and until 1946 continued the forage crops breeding program that had been initiated in 1911. In 1933 he released the orchard grass variety, AVON, which was never widely grown. This was followed by DOLLARD double-cut red clover in 1935, MILTON timothy in 1937, and DRUMMOND timothy in 1940. The history of Dollard has been spotty, but small acreages are still being produced. A significant Dollard seed production centre was started in Joliette county in 1946 and continued to 1954. Dollard also figured in a pioneering effort by Macdonald College to obtain royalties for seed of new varieties sold to producers. Seed stocks of this variety, along with Drummond and Milton timothy and Champlain barley, were allocated on a exclusive basis to a private seed company in 1962. The company assumed the responsibility for multiplication and distribution and provided a small royalty payment to the Agronomy Department for each pound of Certified seed sold. Since that time we have released several other varieties on a similar basis and the system has been adopted by a number of other plant breeding institutions. Such a system has been the forerunner of a formal Plant Breeders' Rights scheme in Canada and provides funds to enhance further research and variety development.

The former Horticulture Department at Macdonald College was also involved in developing new varieties. In 1945 Professor H.R. Murray released MAC RED rhubarb, still found in many home gardens. In 1973 the team of Dr. B. Bible, C. Chong, and E. Gyapay made the MAC PINK variety of

From left to right in June 1946: Professors E.A. Lods, L.C. Raymond, J.N. Bird, and R. Summerby.

tomatoes available to the public through a private seed firm.

Forage crop breeding efforts by Dr. J.S. Bubar, a member of the Agronomy Department staff from 1954 to 1967, culminated in the licensing of LEO birdsfoot trefoil in 1963 and its distribution through the Canadian Forage Seeds Project scheme. This continues to be a very important variety. Dr. N.C. Lawson took over the program and distributed MIRABEL birdsfoot trefoil through the SeCan Association in 1976. Production of this variety is also on the increase.

While our corn breeding program was discontinued in 1971 when Dr. R.I. Brawn left the Agronomy Department, prior to that he carried the program for a number of years and released the hybrid MC 101 in 1965.

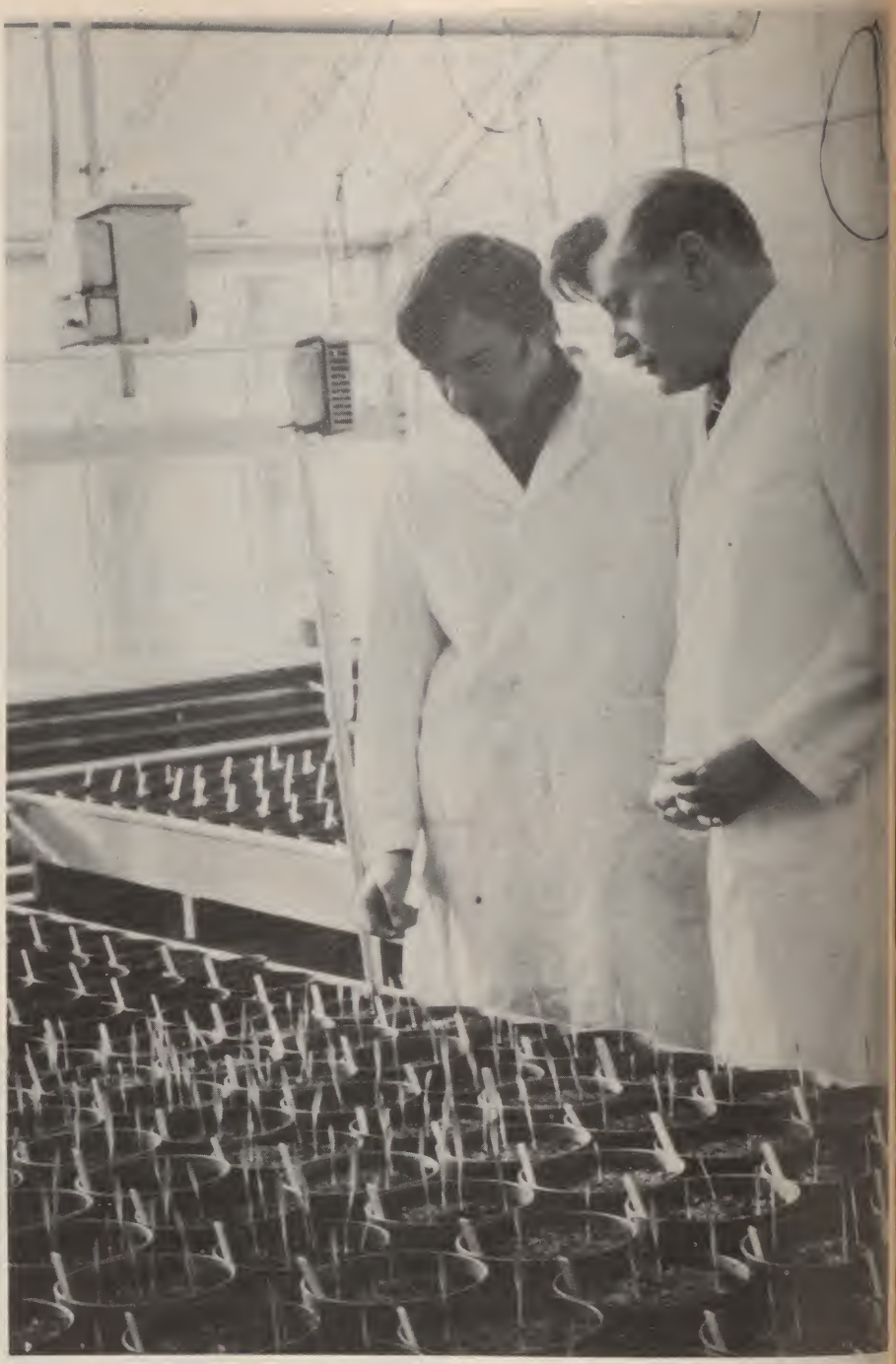
The writer has been involved in the cereal breeding program at Macdonald College since 1954 and has developed several varieties of oats and barley widely accepted by the farming community. The 1957 release of GLEN oats resulted in significant acreages until the late 1960s, with decreasing production through to about 1978. This variety was recommended, not only in Quebec, but also in the Peace River district of Alberta because of its tolerance to low levels of manganese in the soil, which in susceptible varieties creates a nutritional disease known as grey speck. DORVAL oats licensed in 1964 and Yamaska in 1968 are still on the recommended list for Quebec, as is our latest variety, LAURENT, licensed in 1977 and released for multiplication by the SeCan Association. All of these varieties have made a significant contribution to oat production in Quebec and to a lesser extent in eastern Ontario and the Atlantic provinces.

In barleys, reference was made earlier to CHAMPLAIN licensed in 1962 but no longer in production. LOYOLA distributed in 1972 and LAURIER in 1975 are now the most widely grown barley varieties in Quebec and are still recommended in the Atlantic provinces as well. They have also been grown to some extent in Ontario but do not have the disease resistance required for production in the Prairie provinces. Both are non-malting, feed type, six-rowed barleys, multiplied and distributed by private seed companies.

The Department of Plant Science routinely produces Breeder Seed of all Macdonald varieties still in commercial production in order to supply growers of pedigreed seed with the necessary basic seed stocks.

Looking to the future, breeding programs at Macdonald College are continuing with barley, oats, and red clover with a view to the development of new varieties with increased productivity and disease resistance. Related research efforts are directed toward more efficient breeding methods, improved plant architecture and better crop management. Dr B. Coulman, who joined the staff in 1976, has recently initiated a breeding program with reed canarygrass.

In addition to contributing to Canadian agriculture through the develop-



Professor Bruce Coulman, left, who joined the Department in 1976, is shown here with Professor N.C. Lawson.

The Emile A. Lods Agronomy Research Centre has played a key role in plant breeding research; shown here at the Centre is Professor Harold Klinck.

ment of new varieties, the breeding and research programs provide a training ground for plant breeders of the future.

It is appropriate to acknowledge the assistance of other plant breeders in the development of new varieties from Macdonald College. In cereal crops, for example, while crosses and initial selection work are done at Macdonald, the final selection through the testing phase is done on a project group basis with input from breeders at Laval University, the Agriculture Canada Research Station at Ste. Foy, and others. Most new varieties now are the result of team effort.

Macdonald College has played an important role in the development of new varieties for Canadian farmers. Thirty-three varieties of 11 agronomic and two horticultural crops released for general production during a plant breeding history of 78 years attest to this fact. Continuing activity in this area undoubtedly will result in more improved varieties in the future.

Research in the Department of Animal Science

by Professor R.B. Buckland, Chairman Department of Animal Science

The Department of Animal Science has 13 academic staff members and between 35 and 40 graduate students involved in research. Our research facilities consist of modern laboratories and equipment in the Macdonald-Stewart Building, livestock and poultry facilities, specialized animal rooms, and large and small animal surgeries.

The principal theme of the research policy of the Department can perhaps be best stated as: "to improve the efficiency of the production and quality of food and fibre from our animal industry through the disciplines of animal genetics, nutrition, and reproductive physiology in relation to animal management systems."

The Department is concentrating its research activities according to this theme on the dairy industry, including milk production and composition, the use of excess animals from the dairy herd for meat production, and swine and poultry production. This concentration is not to the exclusion of other excellent programs that have been developed by individual staff members in reproduction of the ram, mouse genetics, and mink nutrition.

Outside Funding

The support for research in each of these areas comes almost entirely from outside the University. The majority of funds are provided by traditional granting agencies such as Conseil des recherches et services agricoles du Québec (CRSAQ), Natural Sciences and Engineering Research Council of Canada (NSERC), Agriculture Canada, Medical Research Council (MRC), Formation de chercheurs et d'action concertée (FCAC), industry organizations such as the Canadian Association of Animal Breeders, Canola Council of Canada, and through contracts with industry and government.

It is always difficult to classify research, but the approach of the Department of Animal Science is to attempt to strike a balance between research that "pushes back the frontiers of science" and that which will have a more immediate impact on Quebec, Canada and, to some extent, international animal agriculture. We believe that this balance is essential to assure that our students receive up-to-date training at the frontiers of science and to improve our service to animal agriculture.

In addition to the traditional approach to research, the Department of Animal Science is associated with a number of other programs. Most notably perhaps is the Dairy Herd Analysis Service which, in addition to providing a service to the dairy farmers in six provinces, also provides a data base for teaching and research. At the international level, a five-year project in Trinidad was recently completed which involved the construction and development of a centre for the study of sugarcane as a feedstuff for beef and milk production. The Department of Animal Science also operates a feed testing laboratory and hormone assay laboratory which serves not only the Department and Faculty but also the community at large.

Sensory Evaluation for the Food Industry

by K. Lapsley and Florence Farmer
School of Food Science

It has been over 75 years since Macdonald was founded and in that time many changes have taken place in university education and in the food processing industry. One of the programs which has evolved over the years from the basic sciences is the food science major. The expanding program is administered by the School of Food Science. Students are trained to apply chemistry, microbiology, and engineering principles to the production, processing, preservation, evaluation, and distribution of food. In order to instruct in practical concepts and conduct research, there are microbiological and chemical laboratories, a food processing plant, and a sensory evaluation facility. These facilities are available to staff to assist those in the food industry in solving their problems.

Sensory evaluation studies involve the use of humans as the test subjects. What other species could better verbalize for us their appreciation of the flavour and, therefore, the acceptability of a food product? There are many instrumental tests (for texture, colour, consistency, and nutritive value of a food) which may be used to determine differences or characteristics of foods; however, the final test for any food is its acceptability by the people who will consume it. Although there are thousands of odours and hundreds of flavour components identified for any food, only the human mind can subconsciously process this information and then decide what is pleasing to the palate. Some day we may be able to classify all the components of odour and flavour which differentiate products as we now classify the vitamins. In the meantime, we must depend upon the taste buds and decisions made by a group of humans to the question: "Is this an acceptable product?"

The sensory evaluation facility on the Macdonald Campus consists of two adjacent rooms, one used for the preparation of the food products and the other for evaluation sessions. In order to eliminate distractions and prevent communication when the panelists are seated there are nine individual booths in the room. Both white and red fluorescent lights are available for use in order to mask colour differences between samples. Samples are offered to the panelists through a domed hatch on the back wall of each booth.

Since we strive to provide students with practical laboratory experience and food companies often require 20 to 100 judgments as to whether there is a significant difference and/or preference between a test product or "a new, improved" version and the existing product, an excellent opportunity for collaboration exists. To date a number of food companies and governmental agencies have availed themselves of our expertise. We have tested a low sodium complete liquid meal (two flavours) and compared it to one already on the market. We have conducted studies on the acceptability of: sausages containing mechanically deboned meat and experimentally-produced chicken, pork, beef and veal products and have evaluated the preference for different brands of jam, pie fillings, juices, and spaghetti sauce.

Although the sensory evaluation facilities were set up for testing foods, there are many other related uses for the facilities. One test involved the evaluation of oil spill treating agents in which treated samples of water were smelled to detect any unusual odour which might prejudice a consumer against drinking the water. These facilities have also been used for testing the effectiveness of various chemicals in removing the odour of pig manure.

School of Food Science staff, experienced in evaluating student performance, are eminently suitable persons to evaluate the results of sensory evaluation experiments. These evaluations carried out under proper supervision can help the food industry by providing reproducible results on which to base decisions

Two adjacent rooms make up the sensory evaluation facility: one for the preparation of food products, above, and the other for the evaluation sessions, below.

Agricultural Engineers . . . . . in Pakistan

by Hazel M. Clarke and R.S. Broughton

d Munro and camel driver in the Punjab desert, just about a half mile from lush irrigated crops.

ofessor Robert S. Broughton of the epartment of Agricultural Engineer- g has visited Pakistan four times, in- uding two working trips this year.

His trip in January and February 83 was made at the request of the nadian International Development gency (CIDA) and the Water and ower Development Authority of kistan (WAPDA). He was asked to the leader of a team of three — stafa Soomro, M.Sc. Agr. '82, who Assistant Professor at Sind riculture University at Tando Jam ar Hyderabad, and Brent Patterson, ead of the Drainage Branch, Irriga- n Division, Alberta Agriculture. ese three taught a course on Design Horizontal Subsurface Drainage stems to Control Salinity and aterlogging for personnel of the kistan Water and Power Develop- nt Authority. The course was taught the WAPDA Academy at Tarbella ar the dam and power house which s constructed with assistance of nadians and people from several er countries. The class also made ld measurements and observations the irrigated district near Mardan d in the south of Pakistan, in Sind ovince, where the first Pakistan tile ject is underway.

"The build up of salinity in irrigated soils is now fairly well understood," Professor Broughton explained. "It is a problem that we have in Alberta and Saskatchewan but not in eastern Canada where rainfall exceeds evaporation. The surplus water washes the salt out of the soil to the sea. This has been going on for centuries and is the reason why the soils in eastern Canada are slightly acid. Pakistan has been working on subsurface drainage in recent years by installing tube wells and pumping water from those wells. Vertical drainage works well in about 15 per cent of the irrigated lands where there are permeable gravel layers at some depth below the surface and where the water can seep down to that gravel level through the upper soil. It also works very nicely where the water that is currently in those gravel layers is sweet enough to be used for irrigation. The other 85 per cent of the land which needs drainage improvement for control of salinity has relatively impervious layers of clay which prevent the efficient functioning of wells and, therefore, drainage will need to be done by horizontal subsurface drainage as we do here in Canada."

Bob Broughton's wife Ruth joined him on that first trip which also included stops in Egypt and India. "I was on a short CIDA mission in Egypt," Bob Broughton said, "Canada is assisting Egypt with some land reclamation work, poultry development, and other agricultural improvements." Although Professor Broughton sees a great need for drainage and land reclamation work in India, he says they were mostly tourists in that country. "We visited my first Ph.D. student Ashim Bhattacharya, who is a research scientist at the Indian Agricultural Research Institute, Water Technology Centre, in Delhi, and, among other things, we travelled on what seemed to be the world's longest passenger train — it was nearly a half a mile in length."

The trip to Pakistan for March and April was an urgent one because of the death of the leader of the Canadian drainage design team. "Canada supplied a team of three Agricultural Engineers to assist with the design of the drainage systems for the Mardan Salinity Control and Reclamation Project (the Mardan SCARP). "As I had already been in Pakistan and was familiar with the project," Bob Broughton said, "the CIDA officers asked me to help with the urgent matter of completing the Subsurface Drainage Design Analysis Report. An important review of the project by a mission from the World Bank and CIDA was to take place in early May so I went to assist two graduates from Macdonald — Colin Lovegrove B.Sc. (Agr. Eng.)'71 and Wayne Wood, B.Sc. (Agr. Eng.) '79, who have been working on the Project since July 1982 — to put together the report, technical specifications, and plans for the first horizontal subsurface drainage contract to be undertaken by Canadian contractors in Pakistan. This will involve the installation of drains on about 25,000 acres."

In the total Mardan SCARP about 120,000 acres are irrigated from the Lower Swat Canal by a system of minor canals which were installed betwen 1885 and 1905. The rural population is the most dense of anywhere in Pakistan with some five or six persons per acre. The soil is largely silt loam and silty clay loam

which is quite fertile, but the build up of salinity and waterlogging has gradually taken part of the land out of production and reduced the crop growth to a total of 70,000 acres; 50,000 acres near the Kabul River and its tributaries have adequate natural drainage with no salinity problem.

"The Design Analysis Report and other details were approved by the review mission so the project could move ahead to the next stage of preparing for the construction contract," Professor Broughton pointed out.

Among the CIDA staff who have been helping with aspects of agricultural development and training projects are two Agricultural Engineering graduates: Aly Shady, M.Sc. '73, and Randy Trenholm, B.Sc. (Agr. Eng.) '73.

Three junior staff members from Sind Agriculture University: Krishnlal Khatri, Nissan Nemon, and Mohamned Kalwar are currently doing postgraduate studies in Agricultural Engineering at Macdonald College. Some other Agricultural Engineering graduates from Macdonald have also been working in Pakistan: Rod Munro, B.Sc. (Agr.) '75 and B.Sc. (Agr. Eng.)'76, George Eades, B.Sc. (Agr. Eng) '74, and Buddy Baker, B.Sc.(Agr. Eng.) '83 together with John Wielgut constituted the Enfold International Inc. team who installed subsurface drains on 300 acres as a demonstration of the use of the trenchless drain-laying plough to install pipe directly. They returned to Canada at the end of February to carry on their regular drainage and land improvement work in western Quebec and eastern Ontario. Kazi Muktadir, B.Sc. (Agr. Eng.) '81, is home in Pakistan managing his father's poultry farm and teaching Agricultural Engineering subjects at Sind Agriculture University.

Briefly, Professor Broughton said that Pakistan has a very good agriculture with a wide range of crops. There are over 80 million people and the country feeds itself. It exports cotton, sugar, and citrus fruits but has been losing about 100,000 acres of land per year because of the build up of salinity on the irrigated soils. "If we can do something to keep that land in production," he said, "we will go a long way to help keep Pakistan feeding itself rather than dropping into the group of countries with insufficient food."

Professor Broughton was in the region with the highest concentration of refugees from Afghanistan. "At least three million Afghans have moved into northwest Pakistan as refugees since the Russian invasion 2½ years ago. They brought more than a million camels, goats, and sheep with them." He said that the Afghan refugees are a very self-reliant people, and that they speak the same Pushto language as the people from the Northwest Frontier province of Pakistan. "I must compliment the Pakistani government, the International Committee of the Red Cross, the UN High Commission for Refugees, and the volunteer organizations who are doing an excellent job of making life as satisfactory as possible for the refugees until they can return home. Refugee camps have been set up on land which had a low population density around the fringe of Peshawar and in other areas 50 to 100 miles away. CIDA has helped by sending wheat and rapeseed oil to assist with the food supply."

Colin Lovegrove measures flow from new su surface drain in the Mardan Salinity Control an Reclamation Project.

Mr. Aman, Bob Broughton, and Kazi Muktadir tour Sind Agriculture University with Professo Bux Koondhar, Dean of Agricultural Engineering, and others.

Dr. R.B. Buckland and the Cuban Poultry Industry

The Cuban poultry industry is based almost entirely on poultry lines purchase from Canada during the period 1960 to 1962. Thus, when the Cuban Gove ment was seeking assistance regarding their poultry industry in the ea 1970s, they naturally looked to Canada.

Since 1975, R.B. Buckland, Chairman of the Department of Animal Science has been working with the Cuban poultry industry through CIDA and CUS and is currently Chairman of a group of five Canadian experts working wi the Cuban poultry industry. In April of 1983 he made his fifth visit to Cub to examine the progress being made on joint projects in the areas of nut tion, poultry breeding, poultry pathology, and mechanization. From these p projects, Dr. Buckland sees opportunities for Cuba to improve its poultry pr duction. He sees Canada participating in this development by being able t develop markets in Cuba for birds, veterinary supplies, feed ingredients, an equipment.

Macdonald Extension Services

Dean L.E. Lloyd is pleased to announce the appointment of Professor Pierre Jutras as Director of the Macdonald Extension Services effective June 1, 1983.

A 1951 graduate of Macdonald, Professor Jutras received his M.Sc. from the University of Maine and did further postgraduate work at Laval University. He is currently an Associate Professor in the Department of Agricultural Engineering and will continue with his teaching and research responsibilities in that department.

The Macdonald Extension Services includes such activities as short courses, student recruitment, publications, and liaison with the farm community, agri-business, and alumni. A number of committees made up of Macdonald staff assist with this program at various levels.

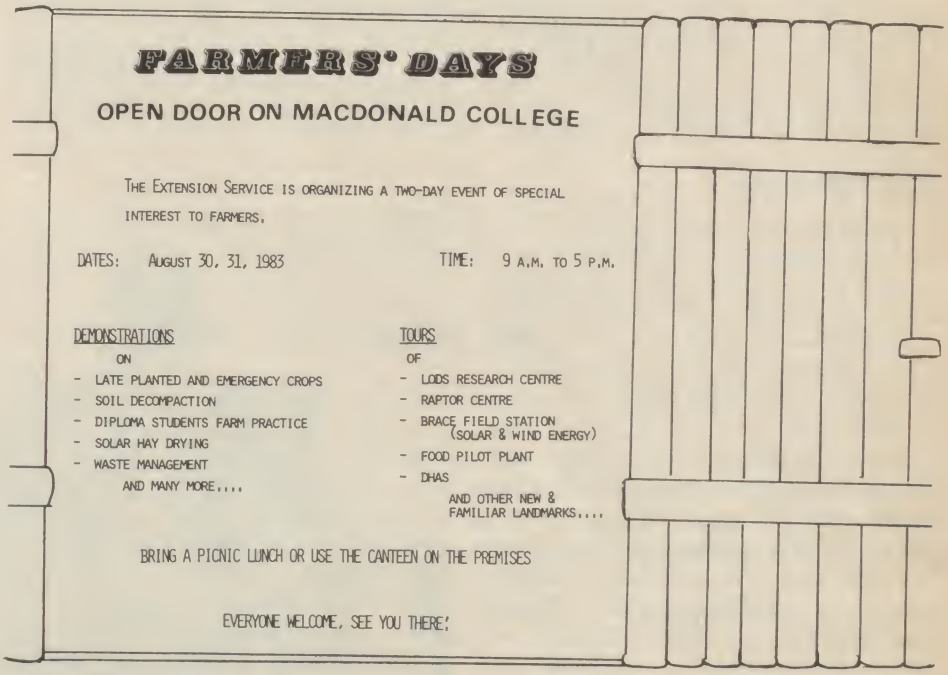
Since his graduation from Macdonald, Professor Jutras has worked in both the business and academic milieu. Past employment has included field service representation for the Carnation Company in Sherbrooke, Que., full time research at the University of Florida Citrus Experiment Station, teaching and research at Laval University, and industrial experience as President and General Manager of Modern Drainage Systems, Inc. He is both a Professional Engineer and an Agronome.

In making this announcement, Dean Lloyd pointed out that certain changes in personnel associated with the program became necessary for financial reasons. "We are faced with rising costs that must be accommodated within a fixed income budget, and we recognize that this is not a problem unique to us. However, it is gratifying to find so many of our staff who are willing to pitch in during these difficult times and contribute to our extension activities on a voluntary basis. For this reason, we are confident that our contacts with the non-university communities will continue into the future."

Pierre Jutras accepts his additional responsibilities with enthusiasm. With an extension background in consulting work in North America and abroad, with membership over the years on various Macdonald and community committees and associations, he commented on this new challenge: "Macdonald is recognized world-wide for the quality of its teaching and the impact of its research. The Macdonald Extension Service must inform the public at large concerning the resources available within the institution, attract young people into agricultural careers, and assist with general public relations. Community liaison has always been an important activity at Macdonald, and I intend to continue the tradition."

Henry Garino

Henry Garino, B.Sc. (Agr.) '74, has been appointed Co-ordinator of Extension Activities for the Department of Animal Science. He plans to strengthen the ties between producers, agribusiness, farmers' organizations, researchers, Macdonald Extension Services, and the Department of Animal Science.



Hope we see you at Farmers' Days. For further information may we suggest you telephone Henry Garino at 457-2000, local 117.

NORMAN BEACH
The Man for the Job

The right man in the right place at the right time would be the best way to sum up the life and career of Norman Beach and the impact that he has had on Quebec agriculture. During his 30 years with the Carnation Company in Sherbrooke, Quebec, Norman Beach, who graduated from Macdonald in 1932, saw the company grow to become the largest evaporated milk plant in the world. As the company grew, so did the advantages to the dairy farmers in the area.

Professor Pierre Jutras worked with Mr. Beach and grew to admire both the man and his endeavours. He visited Mr. Beach recently and we are pleased to share their conversation and some of Norman Beach's reminiscences with you.

If I had not had the training at Macdonald to get my first job after graduation, I would not have gotten the position with Carnation in the first place. I came to Sherbrooke as an Agronome in my early days in 1932. My work took me all over the territory, and I became very familiar with the area and with the type of agriculture that existed at the time. Therefore, when the time came that Carnation needed a man (they had already interviewed 19 before they asked me), I got the position. I was with Carnation until I retired in 1969.

The Early Days

I was born in Cowansville in 1904. My father was a successful farmer and had close contact with Macdonald College. Back around 1914 Macdonald did a great deal of extension work, and I often reflect on what my father achieved through personal contact with Macdonald and with men such as Professors Raymond, Lods, Ness, and Barton. Our farm was used as a show place for our area. The professors came out and established experimental plots and undergraduate students were sent out for experience and were responsible for the direction of agricultural activities that Macdonald was attempting. My father was the first farmer to buy a purebred Ayrshire bull and by the use of that bull he built up a good herd. My oldest brother took over the farm and maintained a purebred Ayrshire herd until he died.

I went to Macdonald by accident. Actually, I didn't even graduate from high school. Mr. Gibson, the Superintendent of the Experimental Farm at Indian Head, Saskatchewan, came to our area for a carload of purebred Ayrshire heifers and was looking for someone to take the cattle West. I was only 16 but I went and stayed at the Farm and worked. As the West was trying to diversify, I was asked to take a second carload out the next year. I stayed and was allocated to work in the horse division out there. They had purebred Clydesdales, and as I was out one day leading a stallion for exercise Mr. Gibson came along and said, "Beach, you're just wasting your time. You go back this fall, get your school leaving, and get to Macdonald." I was 24 years old at the time — late to start college, but I got my high school leaving and then went to Macdonald.

My mother was also instrumental in my going to Macdonald. There were nine of us in the family and all but one went to college, which is no mean feat for a rural family. My mother and staff from Macdonald organized the Women's Institutes in Quebec in 1911. She was President of the first branch at Dunham, a Provincial President, and a Vice-President of the Federated Women's Institutes of Canada when it was established in 1919. She worked very closely with Dean Harrison and others and so it was through her efforts and pushing from Mr. Gibson that I went to Macdonald.

When I went to Macdonald the professors were very practical men who had a good knowledge of agriculture and did a great deal; they were the top men in Canada. I was in general animal husbandry and I particularly remember we had a judging course. I received the Sir Edward D. Stern Challenge Trophy in Livestock Judging. Teams from different agricultural institutions across the country went to Macdonald to compete at the Royal, and one year I won the Stonehouse Memorial Trophy. I was first in dairy cattle judging amongst the 120 contestants.

I graduated in '32 and became an Agronome in Sherbrooke where I was a livestock instructor. I was called out to judge quite often at the local fairs and also did a lot of work with the local calf clubs. Just after I became an Agronome they went through a reorganization and Mr. W. G. MacDougall became District Agronome in '33, and I came to Lennoxville and took over his office until 1939 when I joined Carnation.

I was pleased to get the opportunity to go into commercial work which

Norman and Audrey Beach relax in their home in Lennoxville.

owed me to proceed on my own and o see exactly what I could do. Another graduate from my class, Archie Finlayson, joined the Ogilvie Milling Company and was quite happy. But I guess you're right, it was quite rare to go into commercial work in those days.

A New Plant

Carnation had a plant in Aylmer, Ontario, but it was not supplying the demand for evaporated milk. Mr. Oosterhuis, who was with Carnation in Oconomowoc, Wisconsin, was in charge of acquiring production and expansion. He came to Sherbrooke to look for a Fieldman to take over the responsibility of organizing the milk supply in this area for a new plant. As I mentioned he interviewed 19 men. Eric Ross, who was President of the QTAA, recommended me. I remember the interview in his hotel. After a few minutes he said, "I have to take a train in 10 minutes and I'd like an answer 'yes' or 'no'." I said "yes." I began work in a makeshift hut near where the plant is now because the demand from shippers and truckers was so great.

At one time a lot of sweet cream had been shipped to Boston and other cities in the United States but when Carnation was about to open, milk was going to local creameries and the price for butterfat was only 20 cents a pound. The farmers were anxious for a new market. When I went down to my makeshift office there would be 50 to 60 farmers waiting to put their names in as shippers, and I also must have had well over 100 truckers come in before the plant opened.

We opened on October 10, 1939. That first winter we averaged 53 pounds of milk per patron per day and the next June the maximum production per farm at the highest point was 208 pounds per day, which gives you some idea of the size of the farms. My assistants and I built up to 2,800 shippers — that was the maximum — in 1943. We took in over 1 million pounds of milk per day, which rated it as the largest evaporated milk plant in the world. They had put in new equipment and enlarged the plant in 1940. They had also built a new receiving station in Waterloo. If I made a contribution to the dairy industry in Quebec while with Carnation, it was because the farmers listened to me and they did that because of my background: of having been at Macdonald, of being an Agronome, and because of my knowledge of livestock. There were several things that were needed: better cattle, better feed, better pastures, and better sanitation. Production was low and we had to have better cattle. Mr. Oosterhuis, who came to Sherbrooke about twice a year, encouraged me in the idea of promoting artificial insemination as a quick way of improving livestock. The St. Hyacinthe Centre was open and operating in a small way, and we started to promote the use of AI. We encouraged young people to try for something better and gave trophies for the best calf in calf clubs. It is remarkable what artificial insemination did for this area.

Now there was no use having a good cow if you couldn't feed her. There were few silos in the area. With winter production of only 53 pounds per patron per day, there wasn't enough milk for the plant to be efficient year round. We had big summer production and nothing in the winter. Again, Mr. Oosterhuis got me interested in building silos and I think the silo was the main thing that put the dairy industry on the map. Going back to Macdonald, Professor Raymond was instrumental in the development of hybrid corn — a tremendous improvement. Corn had been grown but it was just a bunch of green forage that was chopped up in the fall, and about half of the silage was lost when it was put into the old wooden silos; it just wasn't properly done.

As Agronomes we had been promoting fertilization of pastures and pasture rotation which was a big factor in getting more production during the summer months. There was a man working only in agronomy: he helped to establish pasture rotation and also suggested better grasses. Ladino clover was introduced at that time and it was an important factor.

We had to have good milk so we worked on getting the minimum amount of bacteria possible. There had never been a real sanitary program so we tried to promote better sanitation on the farm. When the Americans were buying sweet cream, they did set up an inspection service of their own with inspectors coming in periodically. That was the time when they all had to have a small milk house away from the barn and proper cooling of the cream. The inspectors didn't have as close a contact as we had, but it did help a great deal because they wouldn't accept cream that wasn't sweet.

We were able to achieve a lot more by being involved with farmers in a personal way rather than by calling meetings and getting the farmers to come to us. I always thought it was remarkable how quickly this area did develop when we had this constant contact. At one time there were as many as four men in the area — myself and three others, and through these men, who had graduated either from Oka or Macdonald, the whole picture changed and development came very fast. Our whole aim was more efficient production.

Quebec has become the most productive province due to what was here and hadn't been developed. Our waters, good pasture, shade, good land in many areas — everything was suitable for dairying. In a nutshell, I would say that hybrid corn, fertilization of pastures, silos, and artificial insemination made our dairy industry.

SUCCESSFUL CALF RALLY 1983

The Quebec Young Farmers held their 8th Annual Calf Rally from July 8th through to the 10th at Ormstown, Quebec.

The weekend proved to be extremely successful with Lachute winning overall club aggregate. Linda Ness, of Howick, came in first in the Judging Competition which was held Friday night. Pascal Lemire, of Ste-Brigitte, won the High Individual Aggregate for participants 14-21 years of age, and Luc Laplante, of Ste-Brigitte, won for 22-25 years.

The Quebec Young Farmers would like to thank all the people who helped out by taking participants into their homes. Without the communities' support, this event would not be possible.

Doug Griffith
Secretary-Manager, Q.Y.F.

MILK FEVER — a continuing problem

by Professor Elliot Block
Department of Animal Science

The term milk fever is actually a misnomer because the disease results in a loss of milk production but no "fever" is present. The technical term for the disease is "hypocalcemic parturient paresis," or, to translate, a low blood calcium level occurring around parturition (calving) resulting in a paralysis. If left unattended, the affected cow dies. Milk fever is a man-made disease; as we push our cows to produce more milk, we increase the risk of the disease. This does not mean that we should not strive for high milk production; it does mean that we must fully understand the disease so that it can be prevented.

In simple terms, a cow comes into lactation causing a tremendous drain of calcium from her blood to her milk. If this drainage of calcium is too sudden or severe, she comes down with the disease. Since calcium is required for nerve impulses and muscle contraction, the disease is characterized by a partial paralysis, including the heart, a cessation of nervous impulses, and a slowing of blood flow resulting in a drop in the temperature of the cow's extremities such as ears and limbs. If the disease progresses, the heart goes into a totally contracted state, or tetany, which of course, results in death.

Today we know quite a bit about the disease, but we still cannot pinpoint the exact metabolic upset that causes the disease, which is to say that we still do not know why some cows get milk fever while others do not. As early as the 1800s farmers realized the disease was associated with high milk production. This resulted in a treatment of infusing liquids (water) into the udder or pumping the udder with air using a tire pump which effectively shut off milk production and decreased the severity of the disease. The problem with this treatment is that mastitis develops. Other factors associated with the disease are: age, as it occurs most frequently in the second through fourth lactation; breed, as Holsteins and Guernseys are most susceptible, and previous occurrences, as it is likely to occur in cows that have had the disease previously. Aside from the risk of loosing a cow, milk fever has been estimated to cause a 15 to 20 per cent loss in milk production from an affected cow. Most of this loss is during early lactation. Therefore, farmers must be prepared to prevent the disease from occurring rather than only treating when it occurs.

There are a few different procedures for preventing milk fever. The procedures are based on different theories as to the reasons why the disease occurs. All the procedures described below work to the extent of significantly decreasing the incidence of the disease to one or two cases a year (possibly no cases of milk fever in some years). However, you probably will not eradicate the disease forever. Some of the preventative measures against milk fever and their theories are:

Low Calcium Rations for Dry Cows. This treatment is based on the theory that when high calcium (relative to phosphorus) is fed to dry cows the hormone called parathyroid hormone (PTH) is suppressed. This hormone is responsible for releasing calcium from bone stores (PTH acts with vitamin D to accomplish this). When this dry cow fed high calcium calves she must increase PTH and increase calcium release from bone. Some cows are unable to accomplish this rapidly enough to keep pace with milk requirements for calcium and, therefore, get milk fever. Conversely, if you feed a diet low in calcium to dry cows (relative to phosphorus) beginning at three weeks prepartum, the process of calcium release from bone has already started by calving and cows need only to speed up the process or, in other words, are better adapted. If this treatment is used, you cannot feed legume forages or legume-grass mixtures (hay or silage) and the grain portion should be formulated for a low calcium content. Although corn silage is low in calcium, it cannot be fed free choice to dry cows because of the risk of over conditioning. This means that a predominantly grass hay diet should be fed to dry cows. In some areas of Quebec and Ontario this is difficult to accomplish and, therefore, these dairymen should use other preventative measures.

Vitamin D Injections for Dry Cows. Vitamin D is transformed in the body to 25 hydroxy vitamin D ($25[OH]D_3$) and then to 1,25 dihydroxy vitamin D ($1,25[OH]_2D_3$). The latter form of vitamin D is responsible for increasing calcium absorption from the intestine and for calcium release from bone (with PTH). Treatment of dry cows with any of the above vitamin D products, therefore, should increase the calcium level in blood and prevent milk fever if the injections are given at the proper time. If this procedure is used, the vitamin D (30 million IU) is injected at three days prepartum and again at one day postpartum intramuscularly; $25(OH)D_3$ (4 mg in 5 ml of oil) is given at three days prepartum; $1,25(OH)_2D_3$ (0.4 mg in 5 ml of oil) is given intramuscularly at five days prepartum. The above injections can be toxic if the wrong doses are given. The problem with these injections is obvious; predicted calving date must be accurate, which is not always the case.

Anion-Cation Balance for Dry Cows. This is a procedure that we are developing at Macdonald. It is based on the theory that when dry cow rations contain high amounts of anions (negatively charged minerals such as chlorine and sulfur) and relatively low amounts of cations (positively charged minerals such as sodium and potassium) the anions form acids in the intestine and blood. The slightly acidic condition in the intestine causes an increase in calcium absorption and the slightly acidic condition in blood causes an increase in calcium release from bone. Therefore, when dry cows calve they have enough calcium for milk production. This procedure has worked experimentally, and we are now in the process of adapting it for practical use. The procedure offers the advantages of not having to accurately predict calving date or worrying about the type of forage fed to dry cows as in the previously mentioned methods.

When cows get milk fever it is very obvious. The cow cannot stand, she

goes off-feed, she is usually lying with her head thrown onto her back, she grinds her teeth, her extremities are cold (especially her ears), and she is constipated. A bottle containing a calcium-glucose solution, which is specially formulated, should be administered intravenously immediately (usually via the jugular vein). This is usually followed by giving one or two calcium boluses for long term protection. The intravenous infusion must be given slowly (over a 10-15 minute period) because just as a calcium deficiency will cause cardiac arrest, a rapid infusion of calcium will do the same. Simply hold the bottle closer to the ground to slow down the infusion rate. If possible monitor the heart rate; if not possible, a 15-minute infusion time should be adequate. Ask your veterinarian to leave you a supply of bottles and instructions because once a cow gets the disease it may only be a matter of minutes before she will die. Also, keep a close eye on the cow for three to four days because she may get a relapse.

Although we are not sure why cows get milk fever, we do know of some proven preventative measures to be taken. As the saying goes "28 grams (an ounce) of prevention is worth .45 kilograms (a pound) of cure" still holds true today even with metric conversion.

Earlier this year the CBC's popular program Radio Noon was broadcast live from the Centennial Centre with participants and audience made up of Macdonald and John Abbott staff and students. Above Farm Commentator Marc Côté obviously enjoying the talents of the musical group "Rudi's Rumen and the Intestines." The song "Beet Pulp Man" was sung by, left to right, Nigel Bayliss on guitar, Jay Cross, Terry Courtemanche, and Lucas Gass, all Agriculture students. Right: Augusta Lapaix joins Marc Côté in conversation with postgraduate student George Mercessian and Professor A.R.C. Jones, the subject was hybrid poplars and sewage sludge. To find out the show Quebec Minister Gérard Godin answered questions on "Is Your Future in Quebec?"

International Plowing Match and Farm Machinery Show September 27 - October 1, 1983

Robert T. McMahon, B.Sc. (Agr.) '55, has sent us some interesting information on the International Plowing Match and Farm Machinery Show. But first a word about what Robert McMahon has been doing since graduation. He served as Branch Manager for the United Co-ops of Ontario in several locations and has been with the Ontario Ministry of Agriculture and Food since 1968. He is now located in Guelph where he says, "I perform two roles for the ministry, one as co-ordinator for the ministry on matters related to Agricultural Manpower and the second as Manager of the International Plowing Match and Farm Machinery Show. In the latter role, I serve as Secretary Manager of the Ontario Plowmen's Association who are the sponsors of the IPM."

This year will mark the 70th International Plowing Match. It will be held on the Garnet Ralph and neighbouring farms near Richmond, Ontario. Richmond is located just southwest of Ottawa in the region of Ottawa-Carleton. More than 200 outstanding plowmen will compete for over $35,000 in prize money under various classes using tractors and horses.

"We look forward," Robert McMahon said, "to having many more visitors from Quebec this year and are pleased with the response from Quebec firms who will be exhibiting products. They will be part of the Tented City which covers some 35 hectares and includes 600 farm related exhibits of interest to rural and urban people alike."

Every year as many as 150,000 people visit the International. We are certain that Robert McMahon extends a special welcome to Mac graduates and Journal readers.

High Moisture Hay

by Professors Inteaz Alli and Bruce E. Baker
Department of Agricultural Chemistry and Physics

The uncertainty of weather conditions always makes haying operations difficult. The shorter the period between the time the hay is cut and the time that it is baled and placed under cover, the greater are the chances that rain will not damage the forage. Most farmers would agree that fewer difficulties would be encountered if hay could be baled at moisture levels of around 30 per cent without danger of deterioration of hay quality due to heating and moulding. Furthermore, it is well known that handling dry hay is accompanied by substantial losses in leaf material and that a high proportion of the protein in hay resides in the leaves. Experiments conducted on the Macdonald College Farm during the summer of 1982 showed that freshly cut timothy (69 per cent moisture) had 31 per cent leaf material (dry weight basis). Handling the hay when the moisture had dropped to 31 per cent resulted in a drop in leaf material to 29 per cent. When the moisture content had reached 14 per cent the hay was raked and baled and then analyzed for leaf material content; it had dropped to 15 per cent. The results indicate that there would have been greater retention of leaf material if the hay had been baled at about 30 per cent moisture content. It is well known, however, that storage of hay above 25 per cent moisture content is accompanied by mould growth and by excess heating and this results in the deterioration in the nutritive value of the forage.

Research on the preservation of high moisture hay is being directed at (a) the reduction in the drying time of hay in the field and (b) the reduction of mould growth and associated heating of hay baled at high moisture levels (25-30 per cent moisture) by the use of commercial additives. Researchers in the United States are investigating the use of certain chemicals (potassium carbonate and emulsions of methyl esters of long chain fatty acids) as an alternative to mechanical conditioning for hastening the field drying of hay, thereby decreasing the interval between cutting and baling. Research is in progress at Macdonald College on the effects of commercial additives on the keeping quality of hay stored at high moisture levels. Preliminary results indicate that the incorporation of certain additives at the time of baling may help to control the temperature (Figure 1) in the bale and, furthermore, may reduce weight loss and dry matter losses (Table 1) which accompany the storage of high moisture baled hay. Further research will be necessary before specific recommendations can be made on the type of additives, based on their active components, that might be expected to aid in the preservation of high moisture hay.

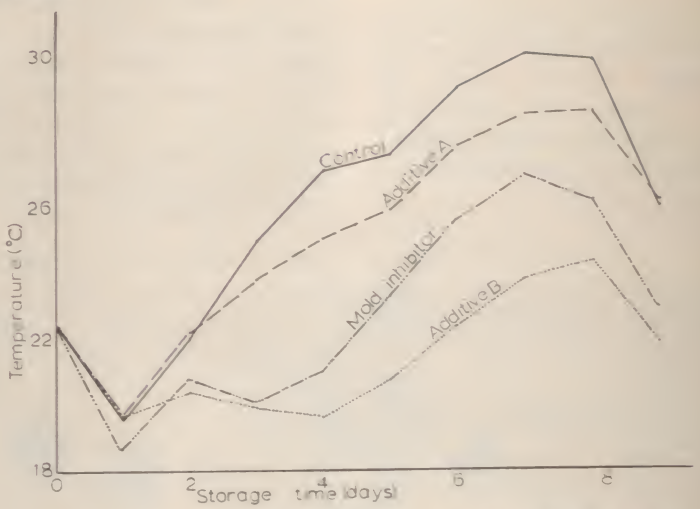


Figure 1. Effect of chemical additives (commercial additives A and B and a mould inhibitor) on the temperature of baled hay

Table 1. **Effect of chemical additives on weight loss and dry matter loss of baled hay (22.5% H_2O)**

Treatment	Weight loss (%)	Dry matter loss (%)
Control	22.7	13.6
Commercial additive A	18.9	10.1
Commercial additive B	16.0	6.6
Mould inhibitor	16.9	7.5

"SURVIVAL TECHNIQUES FOR FARM FOLK" — WORTH REPEATING

The theme for a very worth-while and informative day last February in Shawville was "Survival Techniques for Farm Folk." The day was organized by the Pontiac County Women's Institutes in conjunction with the Quebec Ministry of Agriculture, Fisheries, and Food. Both men and women attended and baby sitting facilities were provided. Dinner was prepared and served by each WI branch in the county.

Speakers and discussion leaders included: the Rev. Ed McCaig, who showed a film, "Change Points" by Joyce Landorf which dealt with stress. Mrs. Moira McTiernan, public health nurse, gave a talk on nutrition stressing the proper foods that school children and seniors should eat. Participants listed what they had eaten the previous day, and these lists were compared for nutritional value. Don Lavallee, a barrister, gave information on wills, partnerships, and [illegible] overs and answered questions from the floor. Dr. Grant Rogers, a veterinarian, talked on farm safety. He discussed tractors and other farm machinery, as well as handling animals.

Bob McLelland, the local Agronome, introduced the final speaker, Peter Smith, an Accountant, whose topic was appropriately entitled "Finances."

DIPLOMA CORNER

by Jim Currie
Assistant Director, Farm Practice

At Convocation on June 3, 1983, the following students graduated from the Diploma in Agriculture Program.

BEAUCHAMP, Dale A., Ile Perrot; BELANGER, Christine Louise, Ste- Anne-de-Bellevue, *Great Distinction*; BENOIT, Gilles, Montreal, *Distinction*; BERTRAND, Paul, Calumet Island, *Distinction*; BROWN, Judith Margaret, Ste-Anne-de-Bellevue, *Great Distinction*; BRUTON, Michael John, Dorion, *Great Distinction*; CHARBONNEAU, Chantal, Hudson; CRAIGMYLE, Christopher Barry, Rigaud; DUBOIS, Philippe, Lachine; GIORDANO, Raffaele, Pointe Claire; HARDY, Merean, St-Jérôme; HOSKIN, John L., Farnham, *Great Distinction*; HOWARD, James Freeman, Shawville; LAJOIE, Gary, Dollard-des-Ormeaux, *Distinction*; LANGTVET, Ian, Ste-Anne-de-Bellevue; LEMIEUX, Pierre, Rosemère, *Great Distinction, Director's Prize, Ralston-Purina Project Prize*; LOWD, Scott G., Martinville; McGART, John Michael, Grenville, *Great Distinction*; O'CONNOR, Dan, Pincourt, *Distinction*; TREPANIER, Bertrand, Dorion; VIAU, Michel, St-Bruno, *Distinction*; WILLIS, D. Susan, Montreal, *Distinction*; WILTSHIRE, Michael, Montreal, *Great Distinction, Ministère de l'Agriculture des Pêcheries et de l'Alimentation du Québec Médaille d'or.*

Dip student Michel Viau with the excellently crafted display sign he made for the course project in Extension Methods. A great deal of thought and skill went into this display which has been used on several occasions for publicity purposes. Congratulations, Michel!

Ten years ago a sassy new brunch of Dip students graduated from Mac and headed off hither, thither, and yon to make their fortunes. There's nothing unusual about that since it happens every year. What is unusual is the number from that class who never did leave. Sure, we have lots of Dip grads working at Macdonald but usually individuals from different years or, as in the case of my year, there are two of us. Of the 1973 class, however, we still have four members.

Now, this was a peculiar class since three of the graduates were from families who already lived and worked on campus. In a sense, these three did what many graduates did by returning home to work on the home farm. It just happened to be their luck that they never had to leave home in the first place. This, in itself, says a lot about Macdonald. If you listen closely to young people in most areas of Quebec, one of the most common themes is that they can hardly wait to get out. It's as if it were some sort of prison. That's not the case here. These young people are happy to stay and are proud of the province, although all expressed concern about the government and the future. Since this is the 10th anniversary after graduation, it seems fitting to dedicate this article to that class by concentrating on these four. Let's take them one at a time:

Jim Straughton, one of the home town boys, is the former secretary of his class. Before coming in to the Diploma Program Jim had more or less qualified himself as an electrician. His father, who was an electrician at Macdonald, had influenced him in that direction. Jim had been working at the Agronomy Department's Seed Farm during the summers and realized that that appealed to him a lot more than hooking wires together. To continue there or somewhere comparable, however, required more agricultural training, so Jim enrolled in the Diploma Program. Upon graduation he was offered a job as a technician with the Agronomy Department which later was incorporated into the Plant Science Department. He has been there ever since but has definitely continued to advance in acceptance of responsibilities. He is now in charge of the field work involved in the herbicide research done by Professor Allan Watson. He is also assistant foreman of the Emile A. Lods Research Centre (the new name for the Seed Farm) and is in charge of equipment maintenance, a job that takes up a lot of winter hours.

As for research work, Jim works mostly with herbicides. Tests are done on commercial products which are sponsored by a company either before government certification or on an available product at different concentrations. This system of close checks on herbicides helps to keep them as safe and effective as possible. He is involved with all the field preparation and work up to the point of recording harvesting data. Most trials are done on cereals, corn, or forages. He then hands the data and samples over to the researcher for analysis.

Jim Straughton has no great desire to leave since he loves his job and the benefits it gives him. He is settled in the area and feels it is good for his wife and family. Jim especially enjoys the social life of the College and, as a superb athlete, he participates in as many sports as time will allow. Many graduates will remember him as the goalie who kept the staff hockey team in a lot of games. He is also a darn good ball player.

The second of the home town boys from the class of '73 is Stu Willox, a tall, red-headed bachelor who has also settled in as a technician with Plant Science. His story parallels Jim Straughton's very closely. He, too, was born and raised at Mac. His father also

works in the Physical Plant Department. He and Jim have been life-long friends so it seems fitting that they enjoy and participate in many of the same activities.

Stuart also worked at the Seed Farm before and during his years as a Diploma student. When he finished his Diploma, he accepted work on a research project at the Seed Farm.

Since then he has been promoted to a full-time technician in charge of the field work done on forages by Professor Bruce Coulman. He is the one who tests different legumes and grasses for yield potential and hardiness so that farmers have a better chance of getting a good crop. His work doesn't stop in the field, however; he also does such lab work as seed counts for quality control and some of the computer analysis of the results.

Part of the work Stuart has done has been breeder seed propagation for distribution to certified seed producers of such varities as Dollard red clover and Leo birdsfoot trefoil. Both are varieties that were developed here. Work is also being done on better varieties of reed canary grass.

Stu Willox enjoys the variety in his job and the freedom that he has due to the confidence placed in him. Although he may never own the vegetable farm that he still thinks about, Stu feels that he is definitely still involved in farming.

One name that will be familiar to a lot of Mac grads is the name Watson. No, not Bob Watson, long-time coach of the Woodsmen, but his son, John, who has taken up right where his father left off. This is another home town boy, but in this case he followed directly in his father's path. When Bob retired as manager of the Morgan Arboretum in 1976, John moved right in to the role, the house, and the full-time hobby of coach of the Woodsmen teams. Between finishing his Diploma and assuming his present position he ran a local tree cutting and maintenance service. John feels that this and the Diploma Program helped prepare him for the job of running the 260-hectare Arboretum and the staff required to do the work.

In some instances John is doing much the same as his father: syrup production, Christmas tree sales, fire wood sales, and so on, but he has made changes. For instance, he has integrated the tree service into the staff's summer work schedule to help make some money for the woodlot. He also particularly enjoys the work in the nursery and has increased the variety of shrubs and plants produced there. He has also seen a drastic increase of public usage of the woodlot with Arboretum membership now exceeding 2,800 persons. Much of John's work is physical, but he does have a lot of people management and record-keeping to do.

When asked what he would like to see as a future for the woodlot, John opened up a whole series of ideas. Most involved increasing the use of the area for student work and demonstration. He loves working with students and would like to see them much more involved in the production aspects of the woods.

For now, John's main involvement with the students has been as coach and slave driver of the Woodsmen. He is extremely proud of his team and doesn't hesitate to reel off a string of statistics on victories that he claims is the best of any intercollegiate team. They have won competitions all over eastern Canada and northeastern United States. As some of us who were on previous Woodsmen teams know, they are merely maintaining an old tradition.

Again, for all you grads and education girls, John assures me that another tradition is being maintained. The Arboretumn is still one of the most popular Lovers' Lanes on the West Island.

Although not actually a graduate, there is another member of the 1973 Diploma class who is still on campus. Vince de Grandpré also was lucky enough to land a job at Macdonald. He is the only one of the four that was not originally from the College, and he is the one who is farthest from agriculture in his present job. Vince is the manager of the Glenfinnan Arena, and

Proud father Jim Straughton with new daughter Kristina.

Stuart Wilcox with young Mark Straughton

Spring is a particularly busy time for John Watson.

Vince de Grandpré enjoys his job at the Glenfinnan Arena.

t is probably more credit to his athletic ability than to his experience with the Diploma Program that got him that job. He is a fine hockey player and as a rugby player has played in national and international matches for the Provincial team. He is a veteran member of the Ste. Anne's rugby team and, although small, is as quick and tough as they come.

As far as his job is concerned, Vince loves it. He also refers to the freedom allowed, the responsibility, the people he works with and for, and the surrounding areas as benefits that make him happy to work here. Under his management and the directorship of Bill Ellyett, Director of Athletics, he has seen the arena steadily improving into something that can definitely make us proud.

To all those 1973 grads who were not lucky enough to land jobs at Macdonald, Happy Anniversary! Let us know where you are.

Of interest is the list of other Diploma grads who make Macdonald possible.

Jim Houston, Dip. '36, former Farm Manager, Secretary of the Canadian Angus Association. Retired and living in Ste. Anne's; Gordon Beaulieu Dip. '55, Dairy Herdsman; Clancy Annesley, Dip. '81, Technician, Dairy Barn; Dennis Hatcher, Dip. '70, Swine Herdsman; Chris Wilson, Dip. '76, Swine Technician; Irv. McArthur, Dip. '76, Poultry Technician; Bob Parkinson, Dip. '63, Campus Maintenance; Norm Campbell, Dip. '66, DHAS Manager; Sue Childs, Dip '66, DHAS: Martha Bowman, Dip. '77, DHAS Technician; Muriel (O'Reilly) Bingham, Dip. '69, DHAS Technician; Tony Pierce, Dip. '75, now a Masters student, Animal Science; Marcel Couture, Dip '65, Assistant Director, Diploma Program, and me, Dip. '70.

I apologize to anyone that I've left out, but I believe the point has been made that if all the Dips quit, this place would be in a sorry state. It more or less confirms what we have always claimed: the Dips run the Campus!

Seeking Solutions

The Faculty of Agriculture has received over $1 million recently from the Ministère de l'agriculture, pêcheries et alimentation (Mapaq) for research in a wide range of problems in agriculture, fisheries, and food. This is a significant increase in Mapaq funding from the previous year.

Some of the 28 new projects will be highlighted in this and subsequent issues of the Journal.

Reduced tillage systems and energy savings for corn production? Earlier articles (Macdonald Journal) have suggested that reduced tillage may be effective on some soils, not on others. **Professor Edward McKyes** of the Department of Agricultural Engineering plans to compare the performance of reduced tillage systems for corn production. Chisel ploughing, no tillage, and conventional mouldboard plough-disc operations will be compared.

Potential benefits are many — lower energy consumption and lower costs of production, improved soil properties, reduced soil degradation and reduced erosion are but a few. But disadvantages in poorer seedbed preparation, excessive weeds or less efficient fertilizer use may be found.

This study, to be carried out with graduate student **Gordon Owen** with assistance from Agriculture Canada, will be integrated with plant water use and growth simulation studies currently being studied by staff from several Macdonald departments.

Can oilseed crops become suitable alternatives to corn and other cereal grains as part of a larger selection of cash crops for Quebec farmers? This question will be studied by **Professor H. G. Coffin,** Department of Agricultural Economics, who will be looking at marketing systems for oilseeds, minimum levels of production necessary for economic returns, and the economic impact of the development of oilseed production along with that of cereal grains.

Professor Coffin notes that the ratio of corn to soybean acreage in Quebec is 115 to 1, whereas in eastern Ontario it is now 29 to 1 (having fallen from 150 to 1 in 1969). Extension of this trend to Quebec could result in greater income stability for cash crop producers.

The Universal Soil Loss Equation — is it applicable to Quebec soils? Will it be useful under our conditions to help control erosion losses?

Professor Guy Mehuys of the Department of Renewable Resources plans to attack the problem of soil erosion in Quebec through a study of the soil loss equation. Before erosion can be predicted, soils have to be characterized as to the factors controlling their erodibility, and rainfall patterns have to be studied to predict intensity-soil loss correlations.

Professor Mehuys hopes to be able to quantify soil losses and thus point the way to reducing such losses.

Professor E. R. Chavez will be studying ways of predicting the energy value of corn and barley from mathematical equations using results from chemical analyses of the cereals. Direct measurement of energy, through biological assay, requires a relatively long process unsuitable for routine analyses. Thus, if a chemical analysis, completed in one to two days, can be used, then energy contents of hog rations can be precisely controlled. This will help the farmer compensate for the wide range in energy contents of cereals used for feeding of hogs.

A solar collector and barn hay drying system is being installed on the haybarn on the Macdonald College Farm by Project Leader **Professor Pierre Jutras,** graduate student **Christopher Stratford,** of the Department of Agriculture Engineering and Consultant **Tom Lawand** of the Brace Research Institute. This research is to determine if there can be an advantage to pre-heating air with solar energy before fans dry the baled hay in storage. It is hoped that faster drying will yield better quality hay.

How safe are your home preserves?

by Marion Zarkadas
School of Food Science

A popular workshop at this year's annual convention of the Quebec Women's Institutes held at Macdonald was the one given by Marion Zarkadas on food safety.

One of the biggest problems facing consumers today is the conflicting information appearing in the media about food safety. Reports of foods causing cancer, hyperactivity, botulism, etc., are seen so frequently that many people have become unnecessarily concerned about the safety of the foods they are eating. In order to get back to ENJOYING foods again, we need to know the correct answers to some of our concerns about foods. In this article I would like to zero in on some questions about the safety of foods preserved at home.

In a recent survey on the food preservation practices in Canadian homes, the Food Advisory Division of Agriculture Canada found that preserving food at home is still a very popular activity. Of the 20,000 people questioned, nearly half preserved food at home. Freezing was reported as the most popular method, with jam making coming in a close second, followed by pickling and canning.

The survey pointed out too that some of the preserving techniques used by Canadians were not as safe as they could be.

1. *What is meant by a "good preserving method?"*

It is a method of preserving food for future use which retains the high quality of the food and does not permit the growth of harmful bacteria, moulds, or yeasts in the food during storage.

2. *How does a consumer know what methods of preserving are safe?*

Agriculture Canada and several provincial departments of agriculture prepare consumer publications on freezing, canning, pickling, and jam and jelly making. These publications are carefully researched and tested for both quality and safety.

3. *Are moulds on jams and jellies harmful?*

Some moulds produce toxic substances as they grow. If a mould appears on the surface of a jam or jelly, a large spoonful of the jam or jelly surrounding the mould should be removed and discarded. If a mould completely covers the surface, it is wisest to discard the whole jar of preserves.

4. *Why must vegetables and meats be canned using a pressure canner?*

Agriculture Canada's survey reports that an alarming number of people are canning vegetables, meat, and fish using a hot water bath method for processing the jars. This is a very unwise practice since boiling temperatures are not high enough to destroy the spores of an organism called *Clostridium botulinum,* a type of bacteria often found on vegetables, meat, and fish. If these spores grow in the low-acid medium of such foods, they may produce a lethal poison. These spores, however, are completely destroyed by temperatures well above the boiling point of water, and these temperatures can be achieved only by use of a pressure canner.

5. *Is it safe to can fruit using a hot water bath method for processing the jars?*

Yes. Fruits and berries are too acid to allow the botulism spores to grow, so fruits can be safely processed in a hot water bath.

6. *If a white sediment develops in a jar of dill pickles, are they safe to eat?*

The white sediment is a normal product of fermentation of the pickles. If the dills are firm and have a good odour, they are safe to eat.

7. *Is freezing a good method for preserving food?*

Freezing is an excellent method for preserving most foods because any bacteria, moulds or yeasts occurring naturally on the foods cannot grow at such cold temperatures.

8. *Is it safe to refreeze foods?*

If frozen foods are removed from the freezer or warm up in the freezer because of a power failure, bacteria, moulds, and yeasts can again begin to grow. If their growth is allowed to continue, the foods become unsafe to eat. The following chart outlines safe guidelines for refreezing your food if your freezer defrosts. You may wish to post this chart over your freezer for easy reference in case of an emergency. Foods which are refrozen, although not a health hazard, may not have as good a texture or flavour as desired.

Many other questions about safe procedures will be answered by Agriculture Canada's publications on *Freezing Foods, Canning Canadian Fruits and Vegetables,* and *Pickles and Relishes.* To obtain these publications, drop a line to: Communications Branch, Agriculture Canada, Sir John Carling Building, Ottawa, Ontario K1A 0C5.

Knowing all the safety tricks this season, you will be ready to pack your peck of pickled peppers in peace.

AFETY AND QUALITY GUIDELINES FOR REFREEZING WHEN FOOD IS . . .

	. . . A Only partially thawed (ice crystals still present)	. . . B Completely thawed in the refrigerator and then held in the refrigerator *for a period not exceeding 24 hours*	. . .C Completely thawed and then held at room temperature (68° to 72°F) (20° to 22°C) for a period *not exceeding two hours.* **Time must be known**
Vegetables	May be refrozen	May be refrozen	Cook immediately and eat
Fruits, Fruit Pies	May be refrozen	May be refrozen	May be refrozen if no fermented taste
Fruit Juice Concentrate	May be refrozen	May be refrozen	**Do not refreeze.** Use as directed if no fermented taste
Baked Products — Cakes, Bread, Pastry	May be refrozen	May be refrozen	May be refrozen
Cream Pies	May be refrozen	May be refrozen. Quality may be poor	Discard
Ice Cream, Sherbets	May be refrozen	Discard	Discard
Homemade Soups	May be refrozen	May be refrozen	Heat thoroughly without delay and eat; **OR** heat thoroughly and freeze
Roasts, Steaks, and Chops	May be refrozen	May be refrozen if normal in appearance and odour	May be refrozen if normal in appearance and odour
Roasts and Steaks — in unopened vacuum package	May be refrozen	**Do not refreeze.** Open package. Cook and eat within 24 hours. May be frozen after cooking to well done stage	**Do not refreeze.** If normal in appearance and odour cook immediately to well done stage and eat
Stewing Meat; Ground Meat; Liver; sausage, etc.	May be refrozen	May be refrozen if normal in appearance and odour	Cook immediately and eat; **OR** cook immediately, repackage and freeze
Poultry — not vacuum packaged	May be refrozen	May be refrozen if normal in appearance and odour	Cook immediately and eat; **OR** cook immediately, remove meat from carcass, repackage and freeze
— in unopened vacuum package	May be refrozen	**Do not refreeze.** Cook immediately to well done stage and eat **OR** cook immediately to well done stage, remove meat from carcass, repackage and freeze	**Do not refreeze.** Cook immediately to well done stage and eat
Fish and Shellfish	May be refrozen	**Do not refreeze.** Cook immediately and eat	Discard
Meat Pies T.V. Dinners, Casserole Dishes — not vacuum packaged	May be refrozen	**Do not refreeze.** Heat thoroughly without delay and eat; or discard	**Do not refreeze.** Heat thoroughly without delay and eat; or discard
Vacuum-Packaged "Boil-in-Bag" Main Dishes	May be refrozen	**Do not refreeze.** Heat thoroughly without delay and eat; or discard	Discard
Vacuum-Packaged Cooked Meats e.g. Bologna, Weiners Luncheon Meats, Ham	May be refrozen	**Do not refreeze.** Use immediately, or discard	Discard
Vacuum-Packaged Lightly Smoked or Cured Meats and Fish, e.g. Bacon, Ham, Kippers	May be refrozen	**Do not refreeze.** Cook immediately, and eat	Discard

FUN FACT FABLE FICTION

by Ralph H. Estey
Emeritus Professor
Department
of Plant Science

Some Bald Facts

According to leading dermatologists, baldness in men appears to result from three principal factors: heredity, age, and a plentiful supply of sex hormones. Research has revealed, say the dermatologists, that the most virile men become bald earliest.

My dictionary assures me that virile means characterized by a vigorous masculine spirit; masterful.

For years I had been told that nothing could be done about my increasing baldness. Now that I know the significance of that third factor, I don't want to do anything about it. In fact, I wouldn't be caught dead with a full head of hair. I'm hormone happy, and I intend to stay that way.

If you are going highbrow or getting a little thin on top, cheer up. You're in great company. Don't let the bald fact of losing your hair make you think in terms of toupee or not toupee. That should not be the question. Just remember this. A shining pate is the sign of a he-man, and any grown man who isn't losing his hair is a sissy.

Winged News

In 1877 the newspaper, *"Nationale"* of Paris had 10 pigeons for carrying dispatches between Versailles, the seat of the French National Assembly at that time, and Paris.

Science

One of the humiliating aspects of modern science is the fact it is gradually filling our homes with appliances that are smarter than we are.

A Non-Breeder

A customer told a hardware store clerk that she wanted a 3/4" pipe plug. The clerk asked, "Do you want a male plug, a female plug, or one of each?" "I just want to stop a leak," the woman replied. "I don't want to raise them."

Monkey Wrench

The monkey wrench was not so named because it is a handy thing to monkey with, or for any kindred reason. "Monkey" is the incorrect spelling of the family name of its inventer, Charles Moncky, who sold his patent for $2,000.

Another Dinosaur Theory

There are several plausible theories as to why the dinosaurs became extinct, and there is also the constipation theory. For centuries, those great leaf-eating lizards depended on the laxative nature of oils in the giant ferns to keep them regular. When the deciduous trees replaced the ferns, the poor dinosaurs found themselves in a deadly bind.

Herbal Teas

In the strictest sense, a cup of tea can be brewed only from the leaves of the oriental tea plant, *Thea sinensis*. However, very good to acceptable "teas" can be prepared from the leaves of a variety of plants.

Oriental tea was not widely used in western countries until it became the beverage of fashion and social status around the middle of the seventeenth century. Until then the most common home beverages were obtained from local wild herbs, some of which were reputed to have medicinal properties. Readily available plants of eastern Canada that may be used for making herbal teas include: Clover, Labrador Tea, Mint, Black Spruce, Red Spruce, Wild Strawberry, and Wintergreen — to mention only a few.

The leaves should be harvested in warm, dry weather before the plants produce flowers. They may be dried on paper or screens in a warm, dry, darkened place. Leaves dried too rapidly in the sun can lose much of their flavour. When crumbly dry, they can be stored in air-tight containers or in plastic bags for freezing.

Most herbal teas are relatively mild in comparison to commercial tea or coffee and many people find them rather bland at first. It is usually necessary to use about twice as much of the herb leaves as tea leaves, and they need to be steeped somewhat longer to bring out the flavour. A few require boiling to release maximum flavour. After trying herbs separately, it can be of added interest to experiment with blends of two or more kinds.

Agronomist

An agronomist is a person smart enough to tell others how to farm but too smart to try it himself.

Biblical Facts

It took nearly seven years (1604-1611) for 54 learned men, some of whom were working only part-time, under the overall direction of King James 1 of England, to translate and publish what became known as the authorized King James version of the Bible, a version largely based on the earlier Bishops' Bible.

There isn't a single date in any one of the Bible's 31,173 verses. These verses range in length from the two shortest, John 11:35 and First Thessalonians 5:16, each of which contains only two words, to the longest, Esther 8:9, with 90 words. One of the verses, Ezra 7:21, contains all the letters of the alphabet, except for the letter J. As one should expect, when a number of writers comment on the same basic story, there is a lot of duplication or near duplication in the Bible. The most striking example of this is the 37th chapter of Isaiah which is exactly the same, word for word, as the 19th chapter of Second Kings.

The oldest dated Hebrew manuscript of the Old Testament only goes back to the tenth century, which is more than 900 years after the time of Christ.

For all the hard things to bear and grin
The hardest thing is being taken in.
Phoebe Carey (1824-1874)

DESERT ECOLOGY TRIP

y Professor J.R. Bider
epartment of
enewable Resources

'e set off promptly at 1700 hours on pril 15. It was cold and raining, the nd of weather during which you con-ntrate so much on the road that our thoughts turn inward. Inevitably, wondered how this long 8,000-mile p would differ from those of other ears.

Usually, when brains become func-onal after the first numbing 12-hour octurnal drive, students notice new ees like redbuds in bloom and syca-ores leafing out, but not this year; s, spring was undoubtedly excep-onally late, even in the South. Late ternoon between Nashville and emphis we drove through the most quisite banks of flowering trees hich obviously grew best on the sturbed soils of the right-of-way. hite, cream, and yellow flowered ees interspered with deep pink red-uds — all, with small glistening new liage, were set off by the deep een forest of pine. It was not the agnificent show of flowers that emed to liven the students but the yriads of turkey vultures which ared over the highway. To me, new ews, different views, new species, fferent participants were what ade the trip worth-while, but to the udents, it was the recognition of ings they had learned over the past ars that seemed to fire them up.

I don't think there was one student mong the 20 who was not familiar ith white-tailed deer or pigs and ost had seen them before. But each ne they saw them at Aransas, Tex-, even after some 48 hours of avel, they got excited. The deer ere scattered in groups of two to 10 l along the park road and, at one oint, we saw about eight feral pigs. I ought the feral pigs were neat, be-use they have an interesting story. ild pigs which originated from lost rm stock are now so numerous in me parts of the South that they ve become an important competi-r on range land. I don't want to give e impression that students only ap-eciated the mundane like deer, gs, alligators, vultures, and cattle egrets — they were more adventure-some than that.

An organ pipe cactus about 15 feet high.

One student noticed mounds made of little oval balls of mud about four or five inches high. His curiosity pricked, he walked to the edge of the slough (small shallow pond) to examine it, and he eventually picked it up. The top side looked ordinary enough, but when he turned it upside down, there was a litle snake all coiled up and comfortable. A shriek, a toss, and the poor little snake found himself on the edge of the road, his castle shattered around him. It was a striped swamp snake — a little unassuming shiny brown snake that makes a living eating crayfish, salamanders, and frogs and is perfectly harmless. It was quite some distance from its known range but in the right habitat. Was this part of a relict population isolated in Texas as the West dried out?

Over the next few days, we would see thousands of birds consisting of 90 species, many of them seen by Northerners. Without question, the big birds were most popular. Students far preferred looking at Anhingas, chachalacas, brown pelicans, and wild turkeys rather than at the elusive and relatively rare dusky seaside sparrow. Fortunately, because I might have had a revolt on my hands, the intensive bird watching sessions were broken by the odd encounter with a nasty water moccasin and by a great lecture on deer-cow-coyote interrelations on the Welder Wildlife Refuge.

The vegetation was awesome as we travelled westward along the Mexican border through the irrigated Rio Grande Valley; the students could appreciate the changing agricultural practices. Vegetable crops were giving way to horticultural crops and pineapple. Cattle ranching was giving way to irrigated alfalfa fields and huge pecan orchards. On the ranges, the thorny brush of mesquite and acacia trees gave way to creosote bush and prickly pear cactus, and these gave way to the

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375-420B Renewable Resources special topics
1983 — Desert ecology (2 credits)

Objectives To get an appreciation of the flora, fauna, vegetation, and arid ecosystems of the Southwest. Major emphasis is on coastal land of Texas, juniper and thorny bush forests, Chihuahuan, Sonoran, and high plains deserts.

Participants 20 students, 2 assistants, 2 professors
Period 15 April — 1 May
Logistics 2 vans and camping equipment
Cost $6,000 transportation, $200 per person for food, drink, and sundries
Financing Financed by the participating students through coat checks, cake, cactus, and T-shirt sales, along with sundry donations.

great yuccas of the Chihuahuan desert and later to the giant cacti of the Sonoran desert. Lest the students forget where they came from, we occasionally climbed the mountains where at the 8,000-foot elevation we found ourselves in spruce, fir, and pine forest with many familiar birds such as warblers and robins.

The last set of stops on this trek centred around the native use of the Southwest. Finding out how the Anasazi Indians (ancient ones) survived on the edge of the desert in their cliff dwellings is a revelation to students who are well clothed, have nice tents and sleeping bags, and take the great luxury of washing and showering as an inalienable right.

All too soon, we were creeping over the continental divide, through 10,000 foot Wolf Pass, viewing mule deer and elk in lower pastures and heading home, some 2,500 miles away. A long journey during which we could reflect.

Yes, it was a good trip, the students survived the camp food, the lack of showers, and the unseasonably cold nights. Even in the course of this brief trip, one could notice a change in the students as new friendships formed and new academic interests developed. This year would stand out in my mind because Professor Robin Stewart agreed to come along and contribu his vast experience in entomology H stories always fascinated or regaled u but it became obvious that one shou never take them too seriously!

The cliff dwellings of the Anasazi Indians (the ancient ones) at Mesaverde, Colorado.

DIARY OF A MAD BIOLOGIST

by Professor Robin K. Stewart
Department of Entomology

Being extracts from my log of the 1983 Desert Ecology Field Course.

April 15 — We set off promptly at 1700 hours on April 15. "How did I get into this?" I asked myself. There I was sitting next to Roger Bider at the front of a busload of garrulous, highly excited students, with a blinding rainstorm obscuring the wind-screen. As Roger hammered down the 401, chirping away quite happily and apparently driving by braille, I clung to my seat and tried to look casual.

I got into it by saying "yes" to a student request that I go with them as a Staff Advisor. So there I was, for my sins, riding shotgun to Roger's driving and teetering between euphoria and terror as we imitated a high speed submarine. We drove non stop to Texas and kept rotating drivers with a "guaranteed sleep" after each driving shift. Roger claimed that there was room for two sleepers in the four by five-foot space at the rear of the bus. My guaranteed sleep meant sharing the space with Roger and, as I am somewhat stocky and he is a comfortably built mesomorph, the picture I recall is of two chubby sardines, one of them (not me) with a chain saw snore.

April 17th — The Aransas Wildlife Refuge on the Gulf Coast of Texas. More than 2,000 miles in 43 hours. Slightly disoriented but straight into bird watching the great abundance of water birds. Roger and I have developed a kind of Laurel and Hardy act whereby I call out a description of a bird until Roger is forced to feed me the name. Example: Me "O.K. Roger, it is smaller than a bread box, kind of brownish, no wing bars, curly toes, and a beak the colour of french fries." Roger: "Oh boy! A Purple Shafted Flip-Flop" (or something equally unknown to me). The students find this act amusing, and I don't mind being the feed man. I do get annoyed, however, when Roger points to a minute black speck falling over the horizon at meteoric speed, and says casually, "A Great Crested Whatnot. You can tell it by the small white patch on the rump." At Aransas he was firing off names at machine-gun pace, and I was sure the secret to his success must lie in his magic binoculars. I sneaked a look through them and it was like looking through two dirty beer bottles. Apparently they had been dropped into a pond.

April 18th — A chance to swim in the ocean at Mustang State Park as well as spot sand dune birds. Many students made a good beginning to losing their skin from sunburn. Pierre Dorais, in particular, changed from a respectable Canadian cream to flaming Mexican red. As he himself pointed out later, his nose subsequently peeled down to the gristle.

April 19th — A good night's sleep at Welder Wildlife Refuge marred by a brush with "liberated woman." I staggered into the men's washroom/shower with the usual early morning need only to be ejected by a flurry of screaning harridans. Took note not to trust door signs in the future. Later in the day had my first experience of Tex-Mex cooking. I suspect that this

prepared by taking uncooked food d pouring hot vegetable oil over it til it becomes saturated and lewarm. Delicious and completely ligestible! Arrived late at Benson te Park in the bottom right-hand rner of Texas. We would have arriv- earlier but the park is very cleverly lden from would-be visitors, and I spect we may have accidently en in and out of Mexico several nes before finding it.

ril 21st — My first sighting of a inted Bunting. This is a small bird h about 15 different colours that ks as if it has been painted by mbers. Speaking of colour, this is ere I discovered Roger Bider's e colours. I happened to get be- een him and his opportunity to spot bird. I took his elbow under my rib ge and suspect that he never even ticed me. Still revenge is sweet! He ked up a prize load of chiggers rrowing mites), and I spent a hap- half-hour dabbing nail polish on his es as he stood docilely before the ss with his pants round his ankles.

ril 22nd — Found that I had com- tely lost my voice. I suspected Lise nelli's spaghetti sauce of the previ- s evening, but she mumbled some- ng about tequila and red wine.

ril 23rd — Arrived (in the early urs of the morning) at Big Bend Na- nal Park in the Rio Grande Valley. e set up camp in a deserted area ly to be told that it was due to be oded for irrigation. Apparently we uld have wakened up under a foot water. On reflection the ground as rather damp. That same evening e visited the local hot springs by the er bank. Some local people were ared out of a year's growth by hav- g 24 slightly sunstroked Canadians I into the hot water beside them d give them a violent rendition of ther Abraham. This action peaked th every participant wildly threshing ery available limb in the water.

ril 25th — Roger Bider did some pair work on slightly faulty head- hts which resulted in my driving 0 miles in pitch dark by following s taillights. Arrived at the Coronada ate Forest in Arizona very late, and stalled the truck in a two-foot deep eam of snow water. Rejecting such spurious advice as "your engine's stopped," I quickly panicked before restarting the engine and squirting up the bank.

"Some local people were scared out of a year's growth by having 24 slightly sunstroked Canadians fall into the hot water beside them. . ." A quote from "Dairy of a Mad Biologist."

April 26th — Hunted scorpions at night using fluorescent lanterns. Most enjoyable as the scorpions stood out from their background as pale green glowing images. I acquitted myself satisfactorily by putting three of the venomous creatures into a plastic collecting vial with commendable composure. Unfortunately, I lost my composure when I could only find two scorpions on returning to camp. Emptied all my pockets very carefully.

April 27th — Tried for an early morning bath in the snow-fed stream and took several hours to regain thermal neutrality. We visited Sierra Linda Ranch to attempt to photograph the hundreds of humming birds coming to feeders. I am now in possession of a large number of slides of empty bird feeders with a slight blur on the bottom corner.

April 28th — First look at diamond back rattle snakes at Oregon Pipe National Monument. Keener staff and students studied these at close range, while I carried out long range studies with binoculars and a telephoto lens. Having scared off a great horned owl before I could photograph it, Roger Bider decided to compensate by showing me elf owls. After an evening of tequila tasting we set out to look for them (in woodpecker holes in suguerro cacti). I followed him for a considerable period in total darkness, as he gave his rendition of owl hoots, but gave up when I had to restrain him from climbing a water storage tank in hot pursuit of imaginary owls.

May 3rd — Camped overnight at St. Louis, Missouri, and helped a policeman in a night search for a dead body in a water mocassin infested lake. However, after observing that one of the witnesses reporting the sighting was drunk and the other was a reputed drug addict, I returned from the hunt. Subsequently we had to lift the policeman patrol's car out of a mud hole.

May 4th — Enroute for Canada we drove through Indiana. During this otherwise boring drive I had my education completed by a demonstration from the other truck of moons, pressed hams, and waffles. Decency forbids further description of these forms of indecent exposure, but old rugby players no doubt will recognize them.

May 6th — After two days of continuous driving we arrived back at Macdonald College at 0900 hours. Very ripe, exhausted, and unshaven we gave a last rousing rendition of Father Abraham before dispersing.

Footnote: Reading this journal I am appalled at the chronicle of misery and suffering and wonder why I would just love to do the whole thing again.

P.S.

News from New York State
I like your new format. After graduating from Mac (M.Sc. '81, Renewable Resources), I went to Cornell's Department of Rural Sociology to work on a Ph.D. in Development Sociology. This project is now at the thesis stage, and I am preparing to write on the political economy of the fruit and vegetable processing industries of New York and Ontario.

Michael Gertler,
Ithaca, N.Y.

Greetings from Australia
I am currently reading a post-graduate program in Agriculture (major in poultry) at Hawkesbury College, N.S.W., Australia. I shall be grateful if you would convey my kind regards to all the staff and students at Macdonald College.

Bashir H. Suman. B.Sc. Agr. '80
Castle Hill, Australia

Fond Memories
I must say how touched I feel whenever I read of Macdonald. My memories of Mac are as vivid as yesterday though my time at Mac was between 1965 and 1970. I am proud of Mac and I look forward to the time when I will be able to stage a "come back" for a Macdonald Reunion and share the warm friendship with the graduates. We are proud of those of you who keep the Mac flame burning.

A. J. Lutalo-Bosa, MSc. (Agr.) 67,
Ph.D. '70
Professor of Biochemistry and Dean of Faculty of Science,
Makerere University,
Kampala, Uganda

A Note from Texas
Just received my Journal and am enjoying it thoroughly. You have really "come a long way, baby!" My husband is also interested in the news, especially the article re Crow rates.

Lynne Muirhead, Dip. Agr. '76
Houston, Texas

Thank You
I'm glad to have an opportunity to subscribe to your Journal. Thank you.

Tom Fahey,
Shawville, Que.

Off-Campus Contributor
I think the new look of the Macdonald Journal is very attractive. I plan to submit more material in the future for your consideration. It is my pleasure to be able to collaborate with you.

Gordon Barnett, B.Sc. (Agr.) '67,
M.Sc. (Agr.) '69
Agriculture Canada Research Station,
Lennoxville, Que.

Interesting and Informative
I would like to commend you on the excellent issue of the Macdonald Journal (May 1983). The articles were very interesting and informative. The photos, too, told their story very well. One article particularly appealed to us as we are neighbours of Suzee and Alvin Barrington. I like the new format.
Mrs. J. Melville Brown
Howick., Que.

Enjoys New Format
I enjoy the new format of the Journal and I am pleased to see it expand.
Ellen Bulow,
Huntingdon, Que.

newsmakers

off campus

Galen and Heather Driver

Last fall, Galen Driver, Dip. (Agr.) '53, B.Sc. (Agr.) '65, and a former Associate Director of the Extension Department, was appointed Manager of the Soil and Energy Programs, Plant Industry Branch, Ontario Ministry of Agriculture and Food. Mr. Driver is responsible for three programs: Agriculture Energy, Soil Classification, and Soil Conservation and Management. "Within the last year our Ministry has given higher priority to all three programs," Galen told us, "so there is considerable activity taking place." There has been a major reorganization within the Ministry. There now is an office in Guelph which houses three branches. One of these is the Plant Industry Branch. I find it quite a change working in a Guelph location instead of Bay Street."

Heather Driver, B.Sc. (H.Ec.) '54, enjoys teaching family studies to Grades 6, 7, and 8. She would like to get back to secondary school but opportunities are few.

DR. JOHN OGLIVIE, B.Sc. (Agr.) '54, School of Engineering Director at the University of Guelph, began sabbatic leave in January to visit first the University of Florida, Gainesville, then research establishments in England and Scotland, with a final two months at Lincoln College, Canterbury, New Zealand.

CHRISTINE ELSIE BARNES, B.Sc. (Agr.) '78, received her Doctorate of Veterinary Medicine from the University of Guelph. Dr. Barnes has now set up a practice in Windsor, Ont.

Two former Mac staffers meet in Ottawa: Nella McKellar, left, and Gwen Sydney. Nella, who worked full time on the Journal and part-time in the Registrar's office from 1944 to 1958, is now in Ottawa as General Manager of the Canadian Veterinary Journal and Managing Editor of the Canadian Journal of Comparative Medicine. She has also just finished editing a "Livestock Manual for the Tropics" which was published in co-operation with CIDA and CUSO and will be used in schools and colleges in the Caribbean. Gwen Sydney, who is now retired in Dorion, was in the Registrar's office from 1947 to 1959. She went to the downtown campus before spending 21 years with the Lakeshore School Board.

n campus

lier this year **DR. JEAN DAVID,** ociate Dean of Student Affairs l Public Relations, accompanied olarship-winning students **ZABETH GAUTHIER and JEAN STALDI** to the Gala Dinner of the d and Allied Industries of the Israel d Organization. The scholarships awarded by the Food and Nutri- Research Foundation.

s for **DR. SHIRLEY WEBER,** ector of the School of Food ence, have included one to Lake na Vista, Florida, where she at- ded the first annual Practical rition Course. The Course was an ate for dietitians and family physi- ns on current issues in nutrition. e recently she attended the Cana- n Dietetics Association National ference in Calgary. Also at the ference were **LINDA CURRIE ELISE TITMAN.** Linda Currie elected Director-at-Large to the rd of Directors of the Association 1983-85 and has been appointed e Executive for 1983-84.

lier this year, **PROFESSOR N. RTHAKUR,** of Agricultural Chem- and Physics was in southern nce to attend a Joint FAO/IAEA ference on application of nuclear niques in agriculture. He pre- ted the only Canadian contribu- (on the use of beta-gauging in luation of plant-water status).

Syrian Visit

Graduate student Eglal Rached (Renewable Resources, Soils Section) and Dr. Karl Harmsen of the International Centre for Research in the Dry Areas (ICARDA) enjoy a tea break provided by local farmers near Aleppo, Syria. Ms. Rached's experimental plots are nearby.

Professor A. F. MacKenzie, Department of Renewable Resources, returned in March from a quick trip to ICARDA in Aleppo, Syria. The Syrian winter had been very cold, but trees were starting to blossom and winter cereals were growing, albeit slower than expected. Graduate student Eglal Rached, at ICARDA (International Centre for Agricultural Research in the Dry Areas, for those who want details) is doing well, and keeping busy with the spring sampling rush. A former student of Professor Bill Grant, Dr. Soumaroo, is on staff at ICARDA, as is another Canadian, Dr. Steve Stephens, recently from Manitoba.

Agriculturally speaking, the Syrians have doubled their sheep population in the last few years and are trying to overcome the resulting soil degradation due to overgrazing. Irrigation is being expanded, but the usual problems (soil salinization, increases in pests) seem to be present.

Anyone interested in Roman ruins or a sabbatical might consider Aleppo, but Gus said you should get someone else to pay the rent — it's steep!

eceased

eritus Professor Earle W. mpton (1895-1983)

Faculty of Agriculture of McGill versity announces with deep ret the passing, in his 88th year, of of its most distinguished scholars l teachers. Dr. Crampton died on il 20, 1983, at Middletown, Con- ticut, after a lengthy illness.

Earle Wilcox Crampton was born August 15, 1895, in Middletown, n. He received a B.S. degree from University of Connecticut, an M.S. n Iowa State College, and a Ph.D. from Cornell University. In 1960 he was awarded the D.Sc. *(honoris causa)* degree by the University of Reading.

Dr. Crampton came to Canada in 1922 when he was appointed Lecturer in the Department of Animal Husbandry at Macdonald College of McGill University — the institution where he was to spend the next 51 years. In 1941 he was appointed Professor of Nutrition and made Chairman of the newly formed Department of Nutrition, a position he held until his retirement from administrative responsibilities in 1960. Dr. Crampton was appointed Emeritus Professor in 1965 and retained an association with the Faculty of Agriculture until his return to the United States in 1973.

The nutrition research program at Macdonald College was under his direction from the inception in 1925 to 1960 and covered a wide field of interest in all species of farm animals, and from the mid-40s the program included human nutrition studies as well. During this 35-year period the science of nutrition gained a level of respectability it had not held previ-

ously in the University, and Professor Crampton's Department of Nutrition gained an international reputation for its innovative nutrition research. He personally directed the research programs of some 70 graduate students, contributed over 100 publications to the scientific literature, wrote or co-authored two textbooks on nutrition and co-authored the Atlas of Nutritional Data on United States and Canadian feeds.

Professor Crampton was a Fellow of the Royal Society of Canada, the Chemical Institute of Canada, the Agricultural Institute of Canada, the American Society of Animal Science, and the American Institute of Nutrition. He served on the Editorial Board of the Journal of Nutrition from 1947-1956. He also served on the Canadian Council of Nutrition, the National Research Council Committee on Animal Nutrition, and was president of the American Society of Animal Science and of the Nutrition Society of Canada. Dr. Crampton was awarded the Commandeur de l'Ordre du Mérite Agricole by the Province of Quebec in 1942, the American Feed Manufacturers' Award for research in animal nutrition in 1948 (the first time awarded), the Morrison Award for research in animal production in 1955, and the E.W. McHenry Award for distinguished service in nutrition in 1974.

All who were associated with Professor Crampton during his long professional career at this University will remember him as a teacher with high expectations of his students, as a scientist whose capabilities seemed unlimited, and as a man completely dedicated to his profession. Respect and admiration are two key words that have always been associated with the name of Earle Crampton.

Contributions to the Earle W. Crampton Award Fund should be sent c/o The Chairman, Department of Animal Science, Macdonald College of McGill University, Ste. Anne de Bellevue, Quebec, Canada, H9X 1C0.

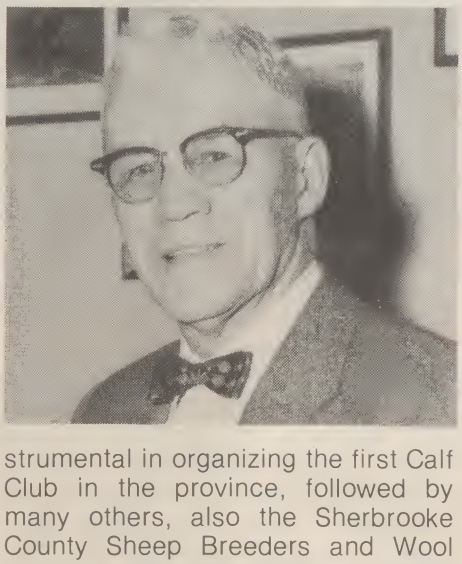
W.G. MacDOUGALL (1892-1983)

A distinct sense of sadness and loss prevaded the Eastern Townships and reached out far and wide to many former residents as it was learned that W.G. MacDougall had passed away on March 16, 1983. The agricultural sector and the community as a whole had lost one whose contribution will endure in the memories of so many, young and old alike. Following the initial feelings of loss, the spirit of sadness was surmounted by a deep sense of thanksgiving and appreciation for the fruitful life of that gentleman, agriculturist, and educator.

Descended from generations of Scottish farmers, he was born on the family farm in Ormstown, Quebec.

Soon after graduation from Macdonald College (1914) with the degree of Bachelor of Science in Agriculture, he went to Lennoxville as "Agricultural Demonstrator." At that time extension work was sponsored by Macdonald College. Later, the Quebec Department of Agriculture assumed responsibility for that work, and Mr. MacDougall was appointed County Agriculturist (Agronome) for Sherbrooke and Stanstead Counties. With enthusiasm, practical knowledge, and great dedication he undertook this career which was to span half a century and in some aspects to continue for many years after his formal retirement in 1963.

Mr. MacDougall's vigorous nature and leadership qualities led to his involvement in establishing new organizations and programs. He was in-



strumental in organizing the first Calf Club in the province, followed by many others, also the Sherbrooke County Sheep Breeders and Wool Growers Association, the Lennoxville Short Courses for young people in agriculture and household science, the Stanstead County School Fair (and other similar fairs in the Townships), the Sherbrooke County Ploughman's Association, and the Stanstead County Sheep Breeders' Association. Mr. MacDougall served faithfully as a Director of the Eastern Townships Agricultural Association for over 50 years and remained a Director of Ayer's Cliff Fair until his death. For many years, his weekly Farm Broadcasts on local radio stations brought agricultural news into farm homes.

Although his professional schedule was demanding it did not prevent his involvement in a wide variety of community activities, and for many years he was actively involved in the Farm Forum.

Mr. MacDougall's life reflected his dedication to his chosen career and his sense of commitment as a responsible citizen. His first love was his work with young people and over the years he taught countless numbers the basics of progressive farming with the view that the future of agriculture rested with them but of even greater importance, he always emphasized the values of good sportsmanship, moral principles, and responsible citizenship.

This resume of the life of Mr. MacDougall would not be complete without a reference to those nearest and dearest to him — his own very close family circle to whom he was so dedicated and by whom he was so dearly loved and respected. Early in his career, in 1919, he married Miss Agnes Dick of Sherbrooke, and this gracious lady played a very supportive role to him throughout his long life. Born to this union were three children — Dr. Daniel MacDougall of Thornhill, Ontario, Dr. George MacDougall of Lennoxville, and Margaret (married to Dr. Orrin E. Taulbee) of Pittsburgh, Pa., all of whom survive him and mourn his loss.

Condensed from **The Record,** April 22, 1983.

(In a letter from Dr. George MacDougall, he wrote "Macdonald might be considered a family institution for us in that Mother took a Homemakers course there in 1919 prior to being married, my brother Daniel took post-graduate training obtaining his Ph.D. in Biochemistry in 1944, and, finally, my sister Margaret (now Mrs. Taulbee) received her B.Sc. in Home Economics at Macdonald in 1949.)

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REUNION '83

All welcome, especially graduates of years ending in 3 or 8

Macdonald Reunion will be held on October 1 on the Macdonald Campus at Ste. Anne de Bellevue

SATURDAY, OCTOBER 1st

9:30 a.m. — 5:00 p.m.	—	**Hospitality, Registration,** and **Display** in the Centennial Centre Lounge.
10:30 a.m.	—	**Seminars** in Food Science and Agricultural Economics.
11:30 a.m.	—	**Reception** in Ballroom Foyer.
12:00 noon	—	**Graduates' Luncheon,** including welcoming address by Dr. L.E. Lloyd, special recognition of the 50th Anniversary Class, and guest speaker, Dr. S.P. Touchburn.
2:30 p.m.	—	**Macdonald International** by Dr. Eugene Donefer.
Throughout the Day and at 3:00 p.m.	—	**Tours** of Macdonald Stewart Building, DHAS, Pilot Plant, Raptor Center, College Farm, and Brace Research Institute.
6:30 p.m.	—	**Macdonald Branch Reception** in the Lounge.
7:30 p.m.	—	**Buffet Dinner,** including recognition of the 25th Anniversary Class and presentation of the Honour Shield.
9:00 p.m. — 1:00 a.m.	—	**Dance** in the Ballroom with music to suit everyone.